

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

August 8, 1979

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Attn: Mr. A. Schwencer, Chief
Light Water Reactors Branch No. 1
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 332C/111776
PO/ATV:scj
Docket No. 50-280
License No. DPR-32

Dear Mr. Denton:

Corrections to the Requested Relief from Inservice
Inspection and Testing Requirements
Surry Power Station Unit No. 1

Pursuant to 10 CFR 50.55a(g), the Virginia Electric and Power Company submitted its programs for inservice inspection and testing of pumps and valves for the last forty month period of the first ten year interval for Surry Power Station Unit 1 on May 17, 1979. After another careful review of the valve testing portion of that submittal, it was found to have typographical errors and omissions in the valve testing portion of that submittal. The corrections are outlined in Attachment A and a page for page replacement of Attachment C of our letter, Serial No. 332B/111776, titled "Requested Relief from the Inservice Testing Requirements for valves as set forth in subsection IWV to Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition with Addenda thru the summer of 1975 (last 40 month period of the first 10 year interval)" may be found in Attachment B.

Very truly yours,

C. M. Stallings

C. M. Stallings
Vice President Power Supply
and Production Operations

- Attachments A Surry Unit 1, Details of omissions and typographical errors in the original Requested Relief from Inservice Testing Requirements of Valves as set forth in the Subsection IWV to Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition with Addenda thru the Summer of 1975 (last 40 month period of the first 10 year interval).
- B Surry Unit 1, Requested Relief from the Inservice Testing Requirements of Valves as set forth in Subsection IWV to Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition with Addenda thru the Summer of 1975 (last 40 month period of the first 10 year interval).

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ATTACHMENT A

Surry Unit 1

Details of omissions and typographical errors in the original
Requested Relief from Inservice Testing Requirements of Valves
as set forth in Subsection XI of the ASME Boiler
and Pressure Vessel Code, 1974 Edition with Addenda thru the Summer
of 1975 (last 40 month period of the first 10 year interval)

1. Page 1 - Valve testing requirements for TV-MS-109 & TV-MS-110 is as shown as CV. Should be EV since these valves are trip valves on steam drains.
2. Page 1 - NRV-MS-102A,B,C should read NRV-MS-101A,B,C.
3. Page 2 - Omission of relief request for 1-VP-12. This valve is normally closed during Reactor operation and remains closed during an accident. Add the relief request #26.
4. Page 12 - Omission of stroke time from test requirements for TV-SS-104A,B. Add EV & ST in Test Required column.
5. Page 13 - Omission of exercise valve and stroke time from test requirements for TV-VG-109B. Add EV & ST in Test Required column.
6. Page 15 - Omission of valves MOV-CS-100A,B.
7. Page 16 - Omission of relief request for EV & ST. This valve is normally closed during reactor operation except for lagging procedures. Refer to request #26.
8. Page 17 - Omission of relief request for CV for 1-RC-160. This valve is normally closed and remains closed during an accident. Refer to request #26.
9. Page 26 - Typographical error for number of relief request. Change 27 to 24.
10. Page 27 typographical error for number of relief request. Change 26 to 23.
11. Page 27 normal position for 1-SI-234 is closed verses open. Also relief request omitted. 1-SI-234 is normally closed and remains closed during accident. Refer to relief request #26.
12. Add relief #26 to page 3 of requests as follows. Valve is normally closed during reactor operation and is required to remain closed during an accident. Valve will be leak tested during each Refueling Shutdown.

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ATTACHMENT B

Surry Unit 1

Requested Relief from the Inservice Testing Requirements
of Valves as set forth in Subsection IWV to Section XI of
the ASME Boiler and Pressure Vessel Code, 1974 Edition
with Addenda thru the Summer of 1975 (last 40 month period
of the first 10 year interval)

ATTACHMENT C

SURRY UNIT 1

REQUESTED RELIEF FROM THE INSERVICE TESTING REQUIREMENTS FOR VALVES AS
SET FORTH IN SUBSECTION IWV TO SECTION XI OF THE ASME BOILER AND PRESSURE
VESSEL CODE, 1974 EDITION WITH ADDENDA THRU THE SUMMER OF 1975
(LAST 40 MONTH PERIOD OF THE FIRST 10 YEAR INTERVAL)

The enclosed tabulation provides a listing of the Class 1, 2 and 3 valves which are subject to the testing requirements of Subsection IWV of Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition, with Addenda thru the Summer of 1975.

This tabulation identifies the valve to be tested, drawing location, function, code class, category, size, valve type, actuator type, normal position and test requirements. Relief from test requirements is requested in cases where these test requirements have been determined to be impractical. Where relief is requested, technical justification is provided along with alternative test methods when applicable.

Leak testing of containment isolation valves shall be performed in accordance with Appendix J of 10CFR50 in lieu of ASME Section XI subsub-article IWV-3420.

There are no testable Category D valves in Surry Unit 1 Systems.

Any inspection requirements identified as impractical during the course of the inspection period will be noted and included in the inspection program at the time of the next revision.

When one valve in a redundant safety related system is found inoperable during testing, nonredundant valves in the remaining train will not be cycled as procedures require but will be cycled after the first inoperable valve in the system is returned to service.

This valve testing program addresses those valves for which demonstration of operability is necessary to assure safe shutdown of the unit or mitigation of the consequences of an accident. The program has been reviewed to assure that testing the valves at the intervals specified will not place the plant in an unsafe condition. Where practical, valves will be cycled at 3 month test intervals.

When a commitment is made to test valves during hot or cold shutdown it is not intent to shutdown the unit solely for the purpose of valve testing nor to perform the testing more often than once per 92 days due to more frequent shutdowns.

The following clarification shall apply to those valves which are scheduled to be exercised during cold shutdown:

"Valve testing shall commence not later than 48 hours after reaching cold shutdown and continue until complete or unit is ready to return to power. Completion of all valve testing is not a prerequisite to return to power."

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SURRY UNIT 1

INSERVICE TESTING

ASME CODE CLASS 1, 2 AND 3 VALVES

LEGEND

TEST REQUIREMENTS

- SP - SETPOINTS of safety and relief valves shall be tested per Section XI subsubarticle IWV-3510 or as modified by specific relief request.
- V₁ - VALVE POSITION shall be verified per Section XI subarticle IWV-3700 or as modified by specific relief request.
- CV - CHECK VALVES shall be exercised at least once every (3) months per Section XI subsubarticle IWV-3520 or as modified by specific relief request.
- LT - LEAK TESTS shall be performed per Section XI subsubarticle IWV-3420 or as modified by specific relief request.
- EV - EXERCISE VALVE for operability at least once every (3) months per Section XI subsubarticle IWV-3410 or as modified by specific relief request.
- ST - STROKE TIMES shall be measured per Section XI subsubarticle IWV-3410 or as modified by specific relief request.

VALVE POSITIONS

O-Open
C-Closed
OC-Open or Closed
T-Throttled

VALVE TYPES

CK-Check
RE-Relief
SF-Safety
BA-Ball
CL-Globe
GA-Gate
BU-Butterfly
SCK-Stop Check
PL-Plug

ACTUATOR TYPES

SA-Self Actuating
MO-Motor
PN-Pneumatic
HW-Handwheel

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME MAIN STEAM DRAW. NO. 11448-FM-64A PAGE 1

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
SV-MS101A,B,C	B-3,B-4,B-6	Main Steam Safety Valves	2	C	4	SF	SA	J	SP	NO
SV-MS102A,B,C	C-3,C-4,C-6	Main Steam Safety Valves	2	C	6	SF	SA	C	SP	NO
SV-MS103A,B,C	B-3,B-4,B-6									
SV-MS104A,B,C	B-3,B-4,B-6									
SV-MS105A,B,C	C-3,C-4,C-6									
TV-MS101A,E,C	D-3,D-5,D-7	Main Steam Line Trip Valves	2	B	30	CK	PN	O	EV ST	YES (1)
PCV-MS102	F-8	Main Steam to Turbine Driven Auxiliary Feedwater Pump	3	B	3	GL	PN	C	EV ST	NO
MOV-MS102	G-8	Main Steam to Turbine Driven Auxiliary Feedwater Pump	3	B	3	GA	MO	C	EV ST	NO
1-MS-176,178, 182	F-8,F-8,F-8	Main Steam to Turbine Driven Auxiliary Feedwater Pump Check Valves	3	C	3	CK	SA	C	CV	NO
NRV-MS101A,B,C	D-3,D-5,D-6	Main Steam Non-Return Valves	2	C	30	SCK	MO	O	CV	YES (1)
TV-MS109	F-7	Main Steam Drain to Condenser	-	B	3	GA	PN	O	EV ST	NO
TV-MS110	E-7	Main Steam Drain to Blowdown	-	B	2	GA	PN	O	EV ST	NO

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME AUX. STEAM & AIR REMOVAL DRAW. NO. 11448-FM-66A PAGE 2

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
TV-SV102	L-2	Air Removal Divert to Reactor Containment	-	A	6	GA	PN	C	LT EV ST	NO
1-VP-12	L-1	Air Removal Divert to Reactor Containment	-	AC	6	CK	SA	C	LT CV	Yes (26)

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SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME FEEDWATER DRAW. NO. 11448-FM-68A PAGE 3

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
1-FW-27,58,89	C-2,B-4,B-5	Auxiliary Feedwater Header Check Valves at Main Feedwater Header	2	C	3	CK	SA	C	CV	YES (2)
1-FW-10,12, 41,43, 72,74	C-2,C-2 C-4,C-4, C-5,C-5	Main Feedwater Check Valves at Containment Penetrations	2	C	14	CK	SA	O	CV	YES (3)
MOV-FW151A,B,C, D,E,F	B-6,B-6, B-6,B-6, C-6,C-6	Auxiliary Feedwater to Steam Generators	3	B	3	GL	MO	O	EV ST	NO
1-FW-131,133, 136,138	C-6,C-6, C-6,C-6	Auxiliary Feedwater Header Check Valves at Containment Penetration	3	C	6	CK	SA	C	CV	YES (2)
1-FW-142,157, 172	D-7,E-7 F-7	Auxiliary Feedwater Pump Discharge Check Valves	3	C	6	CK	SA	C	CV	YES (2)

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SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME CROSS-CONNECTS FOR AUXILIARY FEED DRAW. NO. 11448-FM-68B PAGE 4

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
MOV-FW160A,B	J-5,J-6	Cross-Connects for Unit No. 1 Aux. Feed from Unit No. 2	3	B	6	GL	MO	C	ES ST	NO
1-FW-272,273	I-7,I-7	Cross-Connect for Unit No. 1 Aux. Feed from Unit No. 2 Check Valves at Cont. Penet.	3	C	6	CK	SA	C	CV	YES (2)
1-FW-309,310	H-7,H-7	Cross-Connect for Unit No. 1 Aux. Feed from Unit No. 2 Check Valves	3	C	6	CK	SA	C	CV	YES (2)

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SURREY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME SERVICE WATER DRAW. NO. 11448-FM-71A PAGE 5

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
MOV-CW106A,B, C,D	E-4,E-4, F-4,F-4	Condenser Inlet Isolation Valves	3	B	96	BU	MO	O	EV ST	NO
MOV-SW102A,B	E-6,F-6	Service Water to Component Cooling Water Heat Exchangers	3	B	42	BU	MO	O	EV ST	NO
MOV-SW103A,B, C,D	B-6,B-6 D-6,E-6	Service Water to Recircula- tion Spray Heat Exchangers	3	B	30	BU	MO	C	EV ST	YES (4)
MOV-SW104A,B, C,D MOV-SW105A,B, C,D	A-2,B-2,C-2, C-2,A-2,A-2, B-2,C-2	Recirculation Spray Heat Exchangers Isolation Valves	3	B	24	BU	MO	O	EV ST	NO
MOV-SW106A,B	D-4,D-4	Recirculation Spray Heat Exchangers Cross Connect Valves	3	B	36	BU	MO	O	EV ST	NO
MOV-SW101A,B	B-4C-4	Bearing Cooling Water Heat Exchanger Isolation Valves	3	B	36	BU	MO	O	EV ST	NO

529039

SURREY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME CIRCULATING & SERVICE WATER DRAW. NO. 11448-FM-71B PAGE 6

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA-- TOR TYPE	NORMAL POSI- TION	TEST REC.	RELIEF REQUEST
1-CC-764,752	D-6,G-6	Charging Pump Cooling Water Pump Discharge Check Valve	3	C	2	CK	SA	OC	CV	NO
1-SW-113,108	D-8,G-8	Charging Pump Service Water Pump Check Valve	3	C	2	CK	SA	OC	CV	NO

593040

SURREY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME COMPONENT COOLING WATER DRAW. NO. 11448-FM-72A PAGE 7

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL PCSI- TION	TEST REQ.	RELIEF REQUEST
RV-CC119A,B	L-2,L-3	Component Cooling from RHR Heat Exchanger Relief Valve	3	C	1½	RE	SA	C	SP	NO
1-CC-176,177	B-1,B-1	Component Cooling to RHR Heat Exchanger Check Valves	3	C	18	CK	SA	OC	CV	YES (5)
1-CC-1,58,59	A-2,A-2,A-2	Component Cooling to REactor Coolant Pumps	3	C	6	CK	SA	O	CV	YES (6)
TV-CC105A,B,C	D-8,D-8,E-8	Component Cooling from Reactor Coolant Pumps	3	B	6	BA	PN	O	EV ST	YES (6)
TV-CC107	D-8	Component Cooling from Reactor Coolant Pumps	3	B	2½	GL	PN	O	EV ST	YES (6)
TV-CC109A,B	F-8,F-9	Component Cooling from RHR Heat Exchangers	3	B	18	BU	PN	O	EV ST	NO

559041

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME COMPONENT COOLING

DRAW. NO. 11448-FM-72B

PAGE 8

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
1-CC-242,233, 224	C-4,E-4,I-4	Component Cooling to Reactor Containment Air Recirculation Coolers	3	C	6	CK	SA	O	CV	YES (7)
TV-CC110A,B,C	D-3,F-3,H-3	Component Cooling from Reactor Containment Air Recirculation Coolers	3	B	6	BU	PN	O	EV ST	NO
RV-CC112A,B,C	E-5,F-5,G-5	Component Cooling from Reactor Containment Air Recirc. Coolers Relief	3	C	3, 4	RE	SA	C	SP	NO

5290632

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME _____ COMPONENT COOLING _____ DRAW. NO. 11448-FM-72C PAGE 9

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
RV-CC111A,B	I-3, I-4	Component Cooling to Fuel Pit Coolers Relief Valves	3	C	3/4	RE	SA	C	SP	NO

520043

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME COMPONENT COOLING

DRAW. NO. 11448-FM-72D

PAGE 10

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
1-CC-557,563	C-2,C-2	Component Cooling Pump Discharge Check	3	C	18	CK	SA	OC	CV	NO

539004

SURREY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME SPENT FUEL PIT COOLING

DRAW. NO. 11448-FM-81A

PAGE 11

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
1-FC-9, 11	D-7, E-7	Spent Fuel Pit Cooling Pump Discharge Check	3	C	12	CK	SA	OC	CV	NO

599045

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME SAMPLING

DRAW. NO. 11448-FM-82B

PAGE 12

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
TV-SS103	E-1	Residual Heat Removal System Sample	2	A	3/8	GA	PN	OC	LT EV ST	NO
TV-SS100A,B	D-1,E-1	Pressurizer Liquid Space Sample	1	A	3/8	GA	PN	OC	LT EV ST	NO
TV-SS101A,B	D-1,E-1	Pressurizer Vapor Space Sample	1	A	3/8	GA	PN	OC	LT EV ST	NO
TV-SS106A,B	D-2,E-2	Primary Coolant Hot Leg Samples	1	A	3/8	GA	PN	OC	LT EV ST	NO
TV-SS102A,B	D-2,E-2	Primary Coolant Cold Leg Samples	1	A	3/8	GA	PN	OC	LT EV ST	NO
TV-SS104A,B	D-2,E-2	Pressurizer Relief Tank Gas Space Sample	-	A	3/8	GA	PN	OC	LT EV ST	NO

5000010

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME VENTS & DRAINS DRAW. NO. 11448-FM-83A PAGE 13

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
TV-DA100B	A-8	R. C. Sump Pump Discharge Isolation	-	A	2	GA	PN	OC	LT EV ST	NO
TV-DG108B	A-3	Pr. Dr. Transfer Pump Disch. Isolation	-	A	2	GA	PN	OC	LT EV ST	NO
TV-VG109B	A-1	Gas Vent Hdr. Isolation	-	A	2	GA	PN	O	LT EV ST	NO

250000

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

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DRAW. NO.

VENTS & DRAINS

SYSTEM NAME

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
TV-DA100A	I-8	R. C. Sump Pump Discharge Isolation	-	A	2	GA	PN	OC	LT EV ST	NO
TV-DG108A	L-5	Pr. Dr. Transfer Pump Disch. Isolation	-	A	2	GA	PN	OC	LT EV ST	NO
TV-VG109A	L-2	Gas Vent Hdr. Isolation	-	A	2	GA	PN	O	LT EV ST	NO

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SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME CONTAINMENT & RECIRCULATION SPRAY DRAW. NO. 11448FM84A PAGE 15

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
MOVRS155A,B	F8,F8	Recirculation Spray Pump Suction from Containment Sump	2	A	12	PL	MO	O	LT EV ST	NO
MOVRS156A,B	F6,F6	Recirculation Spray Pump Discharge	2	A	10	GA	MO	O	LT EV ST	NO
IRS11,17	F6,F6	Recirculation Spray Pump Discharge Check Valves	2	AC	10	CK	SA	C	CV LT	YES (8)
MOV-CS100,A,B	I-4,I-4	Containment Spray Pump Suction from RWST	2	B	12	GA	MO	O	EV ST	NO
MOVCS101A,B, C,D	F2,F2, F1,F1	Containment Spray Pump Discharge	2	A	8	GA	MO	C	LT EV ST	NO
ICS13,24	E2,E1	Containment Spray Pump Discharge Check Valves	2	AC	8	CK	SA	C	CV LT	YES (8)
MOVCS102A,B	J3,K3	Chemical Addition Tank to RWST Isolation Valve	2	B	6	GA	MO	C	EV ST	NO

529069

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME

CONT. VACUUM & LEAKAGE MONITORING

DRAW. NO.

11448-FM-85A

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VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
TV-LM100A,B C,D,E,F,G,H	E-3,E-3,E-3, E-3,E-3,E-3, D-3,E-3	Open Pressure System Isolation	-	A	3/8	GA	PN	C	LT EV ST	NO
TV-LM101A,B	H-4,I-4	Closed Pressure System Isolation	-	A	3/8	GA	PN	C	LT EV ST	NO
HCV-CV100	J-5	Cont. Vacuum Air Ejector Isolation	-	A	8	GA	PN	C	LT EV ST	NO
TV-CV-150A,B, C,D	H-7,H-7, H-8,H-8	Cont. Vacuum Pump Suction Isolation	-	A	2	GA	PN	O	LT EV ST	YES (26)

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SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME REACTOR COOLANT

DRAW. NO. 11448-FM-86B

PAGE 17

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
SV-1551A,B,C	F-4,G-4,H-4	Pressurizer Safety Valves	1	C	6	SF	SA	C	SP	NO
TV-1519A	A-6	Primary Grade Water to PRZ Relief Tank	-	A	3	GA	PN	C	LT EV ST	NO
1-RC-160	D-6	Primary Grade Water to PRZ Relief Tank	-	AC	3	CK	SA	C	LT CV	YES (26)

529051

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME RESIDUAL HEAT REMOVAL

DRAW. NO. 11448-FM-87A

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VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
MOV-1700,1701	H-7,H-7	RHR Suction from Reactor Coolant System	1	B	14	GA	MO	C	EV ST	YES (9)
MOV-1720A,B	K-5,K-5	RHR Discharge to Reactor Coolant System	1	B	10	GA	MO	C	EV ST	YES (9)
RV-1721	I-4	RHR System Relief Valve	2	C	3	RE	SA	C	SP	YES (10)
1-RH-5,11	D-6,B-6	RHR Pump Discharge Check Valve	2	C	10	CK	SA	C	CV	YES (11)

589052

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME _____ CHEMICAL AND VOLUME CONTROL _____ DRAW. NO. _____ 11448-FM-88A PAGE 19

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
1-CH-76,92	C-7,D-7	Boric Acid Transfer Pump Discharge Check Valves	3	C	2	CK	SA	0	CV	NO

599053

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME CHEMICAL AND VOLUME CONTROL

DRAW. NO. 11448-FM-88B

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VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
I-CH-258,267, 276	D-6,F-6 G-6	Charging Pump Discharge Check Valve	2	C	3	CK	SA	OC	CV	NO
LCV-1115B,D	C-9,C-9	Charging Pump Suction from Refueling Water Storage Tank	2	B	8	GA	MO	C	EV ST	NO
LCV-1115C,E	H-3,H-3	Charging Pump Suction from Volume Control Tank	2	B	4	GA	MO	O	EV ST	YES (12)
MOV-1275A,B,C	D-6,F-6,H-6	Charging Pump Recirculation Flow Path Isolation	2	B	2	GA	MO	O	EV ST	NO
MOV-1373	F-5	Charging Pump Recirculation Header Stop Valve	2	B	3	GA	MO	O	EV ST	YES (13)
MOV-1381	A-3	Reactor Coolant Pump Seal Water Return	2	A	3	GA	MO	O	LT EV ST	YES (14)

52905A

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME CHEMICAL AND VOLUME CONTROL

DRAW. NO. 11448-FM-88B

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VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
TV-1204	A-3	Reactor Coolant System Letdown Isolation Trip Valve	2	A	2	GA	PN	O	LT EV ST	YES (15)
RV-1209	F-1	Reactor Coolant System Letdown Relief Valve	2	C	2	RE	SA	C	SP	NO
TV-1257	H-1	Volume Control Tank Relief Valve	2	C	3	RE	JA	C	SP	NO
MOV-1289A	B-5	Normal Charging Header Isolation	2	A	4	GA	MO	O	LT EV ST	YES (16)
MOV-1289B	B-5	Normal Charging Header Isolation	2	B	4	GA	MO	O	EV ST	YES (16)
FCV-1160	A-3	RCS Loop Fill Header Isolation	1	A	2	GL	PN	C	LT EV	YES (17)

529055

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME CHEMICAL AND VOLUME CONTROL

DRAW. NO. 11443-FM-88C

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VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
RV-1203	H-1	Letdown Header Relief	2	C	2	CK	SA	C	SP	NO
HCV-1200A,B,C	H-2, H-2, H-2	Letdown Orifice Isolation	2	A	2	GA	PN	OC	LT EV ST	NO
1-CH-309	J-3	Normal Charging Header Isolation	2	AC	3	CK	SA	O	LT CV	YES (16)

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SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME SAFETY INJECTION

DRAW. NO. 11448-FM-89A

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VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
MOV-1860A,B	B-8, E-8	Low Head Safety Injection Pump Suction from Contain- ment Sump	2	A	12	GA	MO	C	LT EV ST	NO
1-SI-56,47	C-8, F-8	Low Head Safety Injection Pump Suction from Contain- ment Sump Check	2	C	12	CK	SA	C	CV	YES (18)
MOV-1862A, B	G-9, G-8	Low Head Safety Injection Pump Suction from Refueling Water Storage Tank	2	B	12	GA	MO	O	EV ST	NO
1-SI-46A, B	G-9, G-8	Low Head Safety Injection Pump Suction from Refueling Water Storage Tank Check	2	C	12	CK	SA	C	CV	NO
1-SI-58, 50	F-7, G-7	Low Head Safety Injection Pump Discharge Check	2	C	10	CK	SA	C	CV	NO
MOV-1863A, B	E-6, G-6	Low Head Safety Injection Pump Discharge to High Head Safety Injection Pump Suction	2	B	8	GA	MO	C	EV ST	NO
MOV-1885A, B, C, D	C-7, G-6, G-6, C-7	Low Head Safety Injection Pump Recirculation to Refueling Water Storage Tank	2	B	2	GA	MO	O	EV ST	NO
1-SI-61, 53	C-6, G-6	Low Head Safety Injection Pump Recirculation to Refueling Water Storage	2	C	2	CK	SA	C	CV	NO

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME SAFETY INJECTION DRAW. NO. 11448-FM-89A PAGE 24

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
MOV-1864A, E	D-6, G-5	Low Head Safety Injection Pump Dischrge to Reactor Coolant System Cold Legs	2	B	10	GA	MO	O	EV ST	NO
RV-1845A, B, C	C-6, D-5 C-5	Low Head Safety Injection Flow Path Relief	2	C	1	RE	SA	C	SP	NO
MOV-1890A, B	B-6, B-5	Low Head Safety Injection to Reactor Coolant System Hot Legs	2	AE	10	GA	MO	C	LT EV ST VP	NO
MOV-1890C	B-6	Low Head Safety Injection to Reactor Coolant System Cold Legs	2	AE	10	GA	MO	O	LT EV ST VP	YES (19)
MOV-1869A, B, 1842	A-3, I-3, A-1	High Head Safety Injection to Reactor Coolant Sys.	2	AE	3	GA	MO	C	LT EV ST VP	YES (20)
MOV-1867C, D	B-1, B-2	Boron Injection Tank Outlet Isolation	2	A	3	GA	MO	C	LT EV ST	YES (21)
MOV-1867A, B	I-2, I-2	Boron Injection Tank Inlet Isolation	2	B	3	GA	MO	C	EV ST	YES (21)

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME SAFETY INJECTION

DRAW. NO. 11448-FM-89A

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VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
TV-1884A	H-1	Boron Injection Tank Recirculation	2	B	1	GA	PN	O	EV ST	NO
TV-1884B, C	H-1, G-2	Boron Injection Tank Recirculation	3	B	1	GA	PN	O	EV ST	NO
RV-1857	D-1	Boron Injection Tank Relief	2	C	3/4	RE	SA	C	SP	NO
TV-SI100	B-4	Nitrogen Accumulators	-	A	1	GA	PN	O	LT EV ST	NO

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SURREY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME SAFETY INJECTION

DRAW. NO. 11448-FM-89B

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VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
RV-1858A, B, C	C-4,G-5,C-7	Accumulator Tank Relief	2	C	1	RE	SA	C	SP	NO
1-SI-107, 109 128, 130, 145, 147	C-5, A-5, G-7, A-7, C-8, A-9	Accumulator Discharge Check	1	C	12	CK	SA	C	CV	YES (22)
MOV-1865A, B, C	C-5,G-6,C-8	Accumulator Discharge	2	BE	12	GA	MO	O	EV ST VP	NO
1-SI-88, 91, 94, 238, 239, 240	A-2, A-2, A-3, B-2 B-2, A-3	Safety Injection to RCS Hot Legs	1	C	6	CK	SA	C	CV	YES (23)
1-SI-235, 236, 237	B-1, B-1 B-2	High Head Safety Injection to RCS Cold Legs	1	C	2	CK	SA	C	CV	YES (23)
1-SI-241, 242, 243	B-1, B-1, B-2	Low Head Safety Injection to RCS Cold Legs	1	C	6	CK	SA	C	CV	YES (24)
1-SI-224, 225, 226, 227	J-1, J-1, J-2, J-3	High Head Safety Injection Check Valves at Containment Penetrations	2	C	3	CK	SA	C	CV	YES (23)
1-SI-228, 229	J-3, J-3	Low Head Safety Injection Check Valves at Containment Penetrations	2	C	6	CK	SA	C	CV	YES (24)

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INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

STEM NAME SAFETY INJECTION

DRAW. NO. 11448-FM-89B

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VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
MOV-1866A, B, C, D, E, F	E-3, E-2, E-2, E-2 E-1, E-1	Cold & Hot Leg Safety Injection Line Throttle Valve	2	E	2	GL	HW	T	VP	NO
1-SI-79, 82, 85	A-1, A-1, A-2	Safety Injection to RCS Cold Legs	2	C	6	CK	SA	C	CV	YES (23)
TV-SI101A, B	J-5, J-5	Accumulator Nitrogen Relief Line Isolation	-	A	1	GA	PN	O	LT EV ST	NO
1-SI-234	J-4	Nitrogen Accumulators	-	AC	1	CK	SA	C	CV LT	YES (26)

530004

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

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DRAW. NO. 11448-FM-124A

STEAM GENERATOR BLOWDOWN

INSTN. NAME

VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
TV-BD100A, B, C D, E, F	C-2, C-2, C-4, C-4, C-5, C-5	Steam Generator Blowdown Trip Valves	2	B	3	GA	PN	0	EV ST	YES (25)

522062

SURRY UNIT 1
INSERVICE TESTING
ASME CODE CLASS 1, 2 AND 3 VALVES

SYSTEM NAME R.W.S.T. CROSS TIE

DRAW. NO. 11448-FM-106C

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VALVE NUMBER	DRAW. LOCN.	FUNCTION	CODE CLASS	CATE- GORY	SIZE (IN.)	VALVE TYPE	ACTUA- TOR TYPE	NORMAL POSI- TION	TEST REQ.	RELIEF REQUEST
TV-SI102A, B	D-3, D-3	Unit No. 1 RWST to Unit No. 2 RWST Cross Tie	2	B	8	GA	PN	C	EV ST	NO
1-SI-25	C-3	Charging Pump Suction from RWST Check Valve	2	C	8	CK	SA	C	CV	YES (12)
1-SI-410	B-3	Charging Pump Suction from RWST Check Valve	2	C	10	CK	SA	C	CV	YES (12)

522063

SURRY UNIT 1

INSERVICE TESTING

ASME CODE CLASS 1, 2 AND 3 VALVES

RELIEF REQUESTS

- (1) Closure of these valves during power operation will result in a turbine and reactor trip. As an alternative, they will be cycled during reactor shutdown.
- (2) Opening these valves during power operation would introduce cold and out of chemistry specifications auxiliary feedwater to the steam generators resulting in thermal stress and possible degradation. As an alternative, they will be tested during cold shutdown.
- (3) Closure of these valves during power operation would require securing feedwater (resulting in a reactor trip) and initiation of auxiliary feedwater flow to back seat the disc. These valves will be tested during cold shutdown.
- (4) A commitment has been made prohibiting the introduction of service water into the Recirculation Spray Heat Exchangers. As an alternative, these valves will be tested during each refueling outage.
- (5) These check valves are located in the containment and may be normally open or closed depending on system lineup. A containment entry and manipulation of other system valves is necessary to test these valves. This is considered impractical during power operation and therefore they will be tested during cold shutdown.
- (6) Component cooling water flow to the reactor coolant pumps is required at all times the pumps are in operation. Failure of one of these valves in a closed position during cycling would result in a loss of the cooling flow to the pump. These valves will be tested during cold shutdown when the reactor coolant pumps are secured.
- (7) These valves remain open during normal plant operations. It is not practical to test for closure unless the containment air coolers are taken out of service. As an alternative, these valves will be tested during each refueling outage.
- (8) It is not possible to verify that this normally closed check valve opens without initiation of flow through the containment spray header or by visual observation inside the containment. As an alternative the valve shall be exercised during each refueling outage.
- (9) Cycling of these RHR system valves during power operations would subject the RHR system to full RCS pressure. These valves will be exercised when the RHR system is placed into operation during cooldown of the reactor coolant system.

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- (10) This relief valve cannot be tested unless the entire RHR system is removed from service and drained. The RHR system must be available during operation and refueling outages for core cooling capability. The valve will be tested whenever the RHR system is removed from service and drained for maintenance.
- (11) This valve can only be cycled when the RHR pumps are started. As an alternative to testing once per (3) months, they will be tested when the RHR pumps are tested in the pump testing program.
- (12) Exercising this valve during power operation would require the charging pump suctions to be aligned with the refueling water storage tank. This would cause a sudden increase in RCS boron inventory. It will be exercised during cold shutdown when the RCS is borated to shutdown conditions.
- (13) This valve cannot be exercised without possible damage to the charging pumps. As an alternative, it will be exercised when the charging pumps are secured during each refueling outage.
- (14) To protect the reactor coolant pumps seals, flow is required at all times during power operation and cold shutdown. This valve will be exercised during each refueling shutdown.
- (15) This valve cannot be exercised when the charging and letdown systems are in operation due to increased risk of overpressurization of the letdown system. It will be exercised during cold shutdown.
- (16) Failure of this valve in a closed position during exercising would cause a loss of charging flow and could result in an inability to maintain reactor coolant inventory. This valve will be exercised during cold shutdown.
- (17) This flow control valve is modulated open and closed by a ten turn potentiometer located on the control board. Since the valve stroke time (ST) is dependent on operator response time in manipulating the controller and the time constant of the control system, it will not provide useful information and therefore will not be measured.
- (18) This normally closed check valve cannot be exercised without isolating suction to the LHS1 pump and draining a portion of the system. This valve will be part-stroke exercised during each refueling outage using the leakage monitoring test connections.
- (19) This valve is required to be maintained in the indicated position with power to the operator removed during power operation. It will be cycled during cold shutdown.
- (20) This valve is directly attached to the charging pump discharge header. If this valve were exercised during power operation, hot or cold shutdown, uncontrolled flow to the RCS might cause overpressurization. Additionally MOV-1869A and B are required to be maintained closed with power to the operator removed during power operation. As an alternative, this valve will be exercised during each refueling outage.

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- (21) These valves were designed to be closed with no differential pressure accross the seats. Cycling during power operation causes the seats to leak when the valve is closed resulting in subsequent dilution of the boron injection tank. As an alternative, these valves will be tested during cold shutdown.
- (22) To exercise this normally closed check valve would require the simulation of a loss of coolant accident, i.e. loss RCS pressure. This valve will be part-stroke exercised by initiating accumulator injection to the RCS while cooling down for a refueling outage.
- (23) The only way to verify that these normally closed check valves open is by initiating flow, using the charging pumps, into the reactor coolant system hot and cold legs. If charging flow was directed to the reactor coolant system in this manner it could cause over-pressurization during cold shutdown or result in a loss in charging flow control during operation. As an alternate, these check valves will be exercised open during each refueling outage.
- (24) The only way to verify that these normally closed check valves can open is by initiating flow, using the low head safety injection pumps, into the reactor coolant system hot and cold legs. During operation or cold shutdown reactor coolant system pressure will be higher than the low head pump discharge pressure precluding flow into the vessel. As an alternate, these valves will be exercised open during each refueling outage.
- (25) Closing these valves during power operation causes the downstream piping to become empty due to drainage and water flashing to steam. When the valves are reopened a flow surge occurs which automatically isolates the inner valves due to high flow. Then a containment entry is necessary to reset these valves and upon reopening the process may occur again. As an alternative these valves will be exercised during cold shutdown.
- (26) These valves are normally closed during reactor operation and are required to remain closed during an accident. As an alternative these valves will be leak tested during each refueling outage.

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