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U. S. Nuclear Regulatory Commission
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SUSQUEHANNA STEAM ELECTRIC STATION
REVISION NOS. 18 FOR UNIT 1 AND 15 FOR UNIT 2
TO THE INSERVICE INSPECTION PROGRAM PLAN
FOR PUMP AND VALVE OPERATIONAL TESTING
PLA-5351

Docket Nos. 50-387
and 50-388

In accordance with ASME Boiler and pressure Vessel Code Section XI, paragraph IWA-1400, attached for your review and concurrence are Revisions 18 and 14 to the Inservice Inspection Program for Pump and Valve Operational testing for Susquehanna Units 1 and 2. The following is a summary of the changes in these revisions:

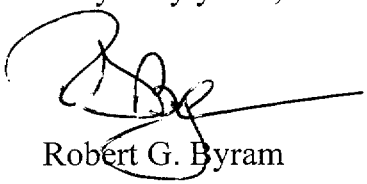
PAGE	DESCRIPTION OF REVISION
LEP-1 thru LEP-10	Corrected the date of revision for various revision references
1VT-5	Added Biocide Injection System check valves 011193A/B
1VT-9	Added Biocide Injection System check valves 012807A/B
1VT-67, 1VT-68	Corrected Safety Position for valves HV149F059, HV149F062 and HV149F084 from O/C to C. Only the Closed safety position is applicable.
1VT-87, 1VT-88	Corrected Relief Request reference number for 152F036A,B,C,D
1VT-98	Corrected Safety Position for valves HV155F066, HV155F075 and HV155F079 from O/C to C. Only the Closed safety position is applicable.
1VT-120	Corrected Tests Required for TV08612B to indicate that Stroke Time (ST) testing is required.

A047

PAGE	DESCRIPTION OF REVISION
1RJ17-1, 1RJ17-2	Corrected first paragraph of Basis for Deferment, which was typed incorrectly in the previous revision. Page 1RJ17-2 had no changes.
1RJ20-1, 1RJ20-2	Refuel Outage Test Justification was withdrawn. Scope of this testing is now included in Relief Request #23, which was previously approved on 4/11/2001 via NRC TAC NOS. MB0424 and MB0428. Page 1RJ20-2 was deleted.
1RR06-1, 1RR06-2, 1RR06-3	Revised Class designation for CRD valves 147114-001 through 147114-185, 147115-001 through 147115-185 and 147138-001 through 147138-185 from Class 2 to Class S (Non-Code). Pages 1RR06-2, and 1RR06-3 had no changes.
1RR23-1 thru 1RR23-7	Relief Request was previously approved on 4/11/2001 via NRC TAC NOS. MB0424 and MB0428.
2VT-20	Corrected ASME Class designation for 241F029A,B,C,D
2VT-52	Added footnote, which was inadvertently deleted in the previous revision.
2VT-57, 2VT-58	Corrected Safety Position for valves HV249F059, HV249F062 and HV249F084 from O/C to C. Only the Closed safety position was applicable.
2VT-88	Corrected Safety Position for valves HV255F066, HV255F075 and HV255F079 from O/C to C. Only the Closed safety position was applicable.
2RJ20-1	Refuel Outage Test Justification was withdrawn. Scope of this testing is now included in Relief Request #23, which was previously approved on 4/11/2001 via NRC TAC NOS. MB0424 and MB0428.
2RR06-1, 2RR06-2, 2RR06-3	Revised Class designation for CRD valves 247114-001 through 247114-185, 247115-001 through 247115-185 and 247138-001 through 247138-185 from Class 2 to Class S (Non-Code). Pages 2RR06-2, and 2RR06-3 had no changes.
2RR23-1 thru 2RR23-6	Relief Request was previously approved on 4/11/2001 via NRC TAC NOS. MB0424 and MB0428.

If you have any questions, please contact Mr. C. T. Coddington at (610) 774-4019.

Very truly yours,



Robert G. Byram

Attachment

copy: NRC Region I
Mr. S. L. Hansell, NRC Sr. Resident Inspector
Mr. R. G. Schaaf, NRC Project Manager

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1

INSERVICE INSPECTION PROGRAM PLAN

FOR

PUMP AND VALVE OPERATIONAL TESTING

Rev.	Description	Prepared by:	Approved by:	Date
8	Responses to NRC Comments	Signatures on File		
9	Addition of Water Level Backfill Valves	Signatures on File		
10	10 Year ASME Code Update	Signatures on File		
11	Corrections to Valve Tables	Signatures on File		
12	Addition of Fuel Pool Cooling Valves	Signatures on File		
13	Responses to NRC Comments and Additional Changes	Signatures on File		
14	Response to NRC Comments on RR#23 Excess Flow Check Valves	Signatures on File		
15	Response to NRC Comments on ROJ-21 FPC Manual Valves	Signatures on File		
16	Miscellaneous Changes	Signatures on File		
17	Incorporate Improved Tech Spec/TRM and Miscellaneous Changes	Signatures on File		
18	Incorporate Revision to RR23 Excess Check Valves and Miscellaneous Changes	Becky Mattern	Joe Kempinski	7/27/01

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT 1
PUMP AND VALVE INSERVICE INSPECTION
TESTING PROGRAM

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EMERGENCY SERVICE WATER M111 Sheet 1 (Continued)

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
011038	C-6	3	C	A	8	CK	SA	--	O/C	FS FS	PS FS	Q SD	-- --	RR02 RR02	
011039	C-8	3	C	A	8	CK	SA	--	O/C	FS FS	PS FS	Q SD	-- --	RR02 RR02	
011040	C-9	3	C	A	8	CK	SA	--	O/C	FS FS	PS FS	Q SD	-- --	RR02 RR02	
011193A	F-4	3	C	A	1	CK	SA	--	C	FS	FS	Q	--	--	
011193B	F-6	3	C	A	1	CK	SA	--	C	FS	FS	Q	--	--	
TV-01124A	C-2	3	B	A	3	GB	HO	--	O	FS FT	FS FT	Q Q	-- --	-- --	
TV-01124B	C-7	3	B	A	3	GB	HO	--	O	FS FT	FS FT	Q Q	-- --	-- --	
TV-01124C	C-5	3	B	A	3	GB	HO	--	O	FS FT	FS FT	Q Q	-- --	-- --	
TV-01124D	C-9	3	B	A	3	GB	HO	--	O	FS FT	FS FT	Q Q	-- --	-- --	

RHR SERVICE WATER M-112 Sheet 1

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
012807A	C-2	3	C	A	1	CK	SA	--	C	FS	FS	Q	--	--	
012807B	F-2	3	C	A	1	CK	SA	--	C	FS	FS	Q	--	--	
112001	C-2	3	C	A	20	CK	SA	--	O/C	FS	FS	Q	--	--	
112003	G-2	3	C	A	20	CK	SA	--	O/C	FS	PS	Q	--	--	
HV-11210A	C-5	3	B	A	20	BF	MO	X	O	FS ST PI	FS ST PI	Q Q 2Y	-- -- --	-- -- --	
HV-11210B	G-5	3	B	A	20	BF	MO	X	O	FS ST PI	FS ST PI	Q Q 2Y	-- -- --	-- -- --	
HV-11215A	C-8	3	B	A	20	BF	MO	X	O	FS ST PI	FS ST PI	Q Q 2Y	-- -- --	-- -- --	
HV-11215B	G-8	3	B	A	20	BF	MO	X	O	FS ST PI	FS ST PI	Q Q 2Y	-- -- --	-- -- --	
HV-112F073A	A-3	3	B	A	6	GT	MO	X	C	FS ST PI	FS ST PI	Q Q 2Y	-- -- --	-- -- --	

REACTOR CORE ISOLATION COOLING M-149 (Continued)

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
HV-149F025	F-8	2	B	A	1	GB	AO	X	O/C	FS ST PI	FS ST PI	Q Q 2Y	-- -- --	-- -- --	
HV-149F026	G-8	2	B	A	1	GB	AO	X	O/C	FS ST PI	FS ST PI	Q Q 2Y	-- -- --	-- -- --	
HV-149F031	H-2	2	B	A	6	GT	MO	X	O/C	FS ST PI --	FS ST PI --	Q Q 2Y --	-- -- -- --	-- -- -- --	T. S. Approved Amendment #149.
HV-149F059	G-3	2	A	A	10	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	

REACTOR CORE ISOLATION COOLING M-149 (Continued)

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
HV-149F060	G-3	2	A	A	2	GB	MO	X	O/C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	
HV-149F062	F-4	2	A	A	2	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	
HV-149F084	F-3	2	A	A	2	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	
HV-149F088	C-3	1	A	A	1	GB	AO	X	O/C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	Rapid acting valve.

CORE SPRAY M-152 (Continued)

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
152005	E-8	2	C	A	3	CK	SA	--	C	FS	--	O	--	RR08	Periodic inspection.
152F003A	E-5	2	C	A	12	CK	SA	--	O/C	FS	FS	Q	--	--	
152F003B	E-8	2	C	A	12	CK	SA	--	O/C	FS	FS	Q	--	--	
152F003C	E-6	2	C	A	12	CK	SA	--	O/C	FS	FS	Q	--	--	
152F003D	E-9	2	C	A	12	CK	SA	--	O/C	FS	FS	Q	--	--	
152F029A	A-6	2	C	A	2	CK	SA	--	C	FS	FS	RF	--	RR24	Closure test only.
152F029B	A-6	2	C	A	2	CK	SA	--	C	FS	FS	RF	--	RR24	Closure test only.
152F030A	A-6	2	C	A	2	CK	SA	--	C	FS	FS	RF	--	RR24	Closure test only.
152F030B	A-5	2	C	A	2	CK	SA	--	C	FS	FS	RF	--	RR24	Closure test only.
152F036A	E-5	2	C	A	3	CK	SA	--	O	FS FS	PS FS	Q SD	-- --	-- RR27	Open test only.
152F036B	E-8	2	C	A	3	CK	SA	--	O	FS FS	PS FS	Q SD	-- --	-- RR27	Open test only.

CORE SPRAY M-152 (Continued)

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
152F036C	E-6	2	C	A	3	CK	SA	--	O	FS FS	PS FS	Q SD	-- --	-- RR27	Open test only.
152F036D	E-9	2	C	A	3	CK	SA	--	O	FS FS	PS FS	Q SD	-- --	-- RR27	Open test only.
HV-152F001A	H-3	2	B	A	16	GT	MO	X	C	FS ST PI --	FS ST PI --	Q Q 2Y --	-- -- -- --	-- -- -- --	T. S. Approved Amendment #149.
HV-152F001B	H-1	2	B	A	16	GT	MO	X	C	FS ST PI --	FS ST PI --	Q Q 2Y --	-- -- -- --	-- -- -- --	T. S. Approved Amendment #149.
HV-152F004A	D-4	2	B	A	12	GT	MO	X	O/C	FS ST PI	FS ST PI	Q Q 2Y	-- -- --	-- -- --	

HIGH PRESSURE COOLANT INJECTION M-155 (Continued)

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
HV-155F066	G-3	2	A	A	20	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	
HV-155F075	F-4	2	A	A	3	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	
HV-155F079	F-3	2	A	A	3	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	
HV-155F100	B-3	1	A	A	1	GB	AO	X	O/C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	Rapid acting valve.

CONTROL STRUCTURE CHILLED WATER M-186 Sheet 2 (Continued)

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
TV-08612B	B-5	3	B	A	6	GT	MO	--	T	FS ST	FS ST	Q Q	-- --	-- --	
TV-08643B	G-8	S	B	A	3	GT	MO	--	T	FS ST	FS --	Q --	-- --	-- --	Modulating control valve. Non-code valve.
.TV-08652B	C-9	S	B	A	3	GT	MO	--	T	FS ST	FS --	Q --	-- --	-- --	Modulating control valve. Non-code valve.
TV-08662B	A-9	S	B	A	3	GT	MO	--	T	FS ST	FS --	Q --	-- --	-- --	Modulating control valve. Non-code valve.

REFUELING OUTAGE TEST JUSTIFICATION NUMBER 17

System:	Control Structure Chilled Water and Emergency Service Water
P&ID:	M-186 and M-111
Valves:	086018 086118 111144 111145
Category:	C
Class:	3
Function:	Condenser and Chilled Water Flowpath
Impractical Test Requirement:	Exercise valves once per 92 days.
Basis for Deferment:	The ultimate function of these valves is providing chilled water to the cooling coils of the Control Structure HVAC system. Rather than individually testing each valve for proper functioning, operation of the chilled water loop with cooling supplied by the emergency condenser loop (cooled by ESW) provides a functional system test which is indicative of proper operation of all system components. As this is an auxiliary support system rather than a water-supply system, this testing provides more meaningful results than individual valve testing. Individual exercise testing of the check valves in these subsystems is not feasible. System interlocks require initiation and startup of circulating pumps and/or chiller, after which the valves automatically actuate. Check valves 086018 and 086118 are installed in the emergency condenser water circulating pump discharge line of each chiller. Check valves 111144 and 111145 are installed in the Emergency Service Water supply line to the emergency condenser of each chiller. Flow through each of these lines is controlled by a temperature control valve, whose internal geometry reduces flow through the line as cooling water temperature decreases below its straight-through full flow setpoint. Maximum required accident condition flow of 740 gpm through each line is normally achieved only once each 36 month period, during performance of Emergency Service Water System flow balancing, by defeating electrical control of each of the temperature control valves.

REFUELING OUTAGE TEST JUSTIFICATION NUMBER 17 (Cont'd.)

Alternative Testing:	As part of each quarterly chilled water flow verification test, monitor the chilled water loop chiller discharge temperature and verify that the specified discharge temperatures are maintained. In conjunction with this testing perform "partial" opening exercise tests of check valves 086018, 086118, 111144 and 111145. In conjunction with Emergency Service Water System Flow Balance Testing, conducted at least once each 36 month period, perform "full" opening exercise tests of check valves 086018, 086118, 111144 and 111145, with required maximum accident condition flow through 111144 and 111145 measured with the permanent installed flow rate instrument and the temperature control valve disabled in its non-recirculation position.

REFUELING OUTAGE TEST JUSTIFICATION NUMBER 20

REFUELING OUTAGE TEST JUSTIFICATION HAS BEEN WITHDRAWN

RELIEF REQUEST NUMBER 06

System: Control Rod Drive

P&ID: M-147

Valves	Category	Class
147114-001 through 147114-185	C	S
147115-001 through 147115-185	C	S
XV-147126-001 through XV-147126-185	B	2
XV-147127-001 through XV-147127-185	B	2
147138-001 through 147138-185	C	S

Function: Control Rod Scram

Impractical Test Requirement: Exercise valves once per 92 days and measure stroke times.

Basis for Relief:

These valves, located on the hydraulic control units for the 185 control rod drives, perform the active safety function of rapidly inserting the control rods into the reactor core, upon receipt of a reactor scram signal from the reactor protection system. Exercising these valves quarterly during power operations could result in the rapid insertion of one or more control rods more frequently than desired. Where testing could result in the rapid insertion of control rods, thereby causing rapid reactivity transients and wear of the control rod drive mechanisms, the control rod scram test frequency identified in the Plant Technical Specifications will be utilized as the valve testing frequency.

Normal control rod motion has been shown to be an indicator that the associated cooling water header check valve (147138 -001 through -185) moves to its safety position (closed). Normal control rod motion may not occur if this check valve were to fail in the open position. An additional positive test of the closure of this valve can be provided by venting of the cooling water header during Primary Containment Integrated Leakage Testing, conducted per TS 5.5.12.

RELIEF REQUEST NUMBER 06 (Cont'd)

Normal control rod motion does not serve as an indicator that any scram discharge header check valve (147114 -001 through -185) moves to its safety position (open), however. Since this check valve is moved to its open position only by scram exhaust flow, a positive test of the opening of the valve can only be provided by the periodic scram testing and control rod insertion timing specified by SR 3.1.3.4.

Verification that any charging water header check valve (147115 -001 through -185) moves to its safety position (closed), requires that the control rod drive pumps be stopped to depressurize the charging water header. This test cannot be performed during power operations because stopping the pumps would result in loss of cooling water to all control rod drive mechanisms and seal damage could result. This test cannot be performed during each cold shutdown because the control rod drive pumps supply seal water to the reactor recirculation pumps and one of the recirculation pumps might be kept running, thus continuing to need its seal water supply. The HCU accumulator pressure decay test, specified by TRS 3.1.4.3, provides verification of the closure of its charging water header check valve.

The scram inlet valves (XV-147126 -001 through -185) and the scram exhaust valves (XV-147127 -001 through -185) are air operated valves that full-stroke in milliseconds and are not equipped with position indication, thereby rendering measurement of their full-stroke times impractical. Verifying that the control rod associated with each pair of these valves meets the periodic scram testing rod insertion time limits, specified by SR 3.1.3.4, is an acceptable alternate method of detecting degradation of these valves. Since these measurements of control rod insertion times are subject to the conservative limitations of SR 3.1.4.1, 3.1.4.2, 3.1.4.3 and 3.1.4.4, and because these measurements cannot be meaningfully correlated with the full-stroke times of the scram inlet and exhaust valves, trending of these scrams time measurements in any manner comparable to that of valve stroke times is both impractical and unnecessary.

These bases for relief from applicable code testing requirements for these individual control rod scram valves are intended to conform to those provided as guidance by NRC Generic Letter 89-04 (Position #7).

RELIEF REQUEST NUMBER 06 (Cont'd)

Alternative Testing:

Proper functioning of the scram discharge header check valves (147114-XXX), of the scram inlet valves (XV-17126-XXX), and of the scram exhaust valves (XV-147127-XXX) will be verified by periodic scram testing and control rod insertion timing, with reactor pressure ≥ 950 psig, conducted per SR 3.1.3.4 and SR's 3.1.4.1, 3.1.4.2, 3.1.4.3 and 3.1.4.4:

a) For all control rods prior to thermal power exceeding 40% of rated thermal power, following core alternations or after a reactor shutdown that is greater than 120 days.

b) For specifically affected individual control rods, following maintenance or modification to the control rod or control rod drive system, which could affect the scram insertion time of those specific control rods.

c) For a representative sample of the control rods, at least once per 120 days of power operation.

d) For specifically affected individual control rods, prior to thermal power exceeding 40% of rated thermal power, following maintenance or modification to the control rod or control rod drive system, which could affect the scram insertion time of those specific control rods.

Proper closure of the charging water header check valves (147115-XXX) will be verified by the demonstration that each individual accumulator check valve maintains its associated accumulator pressure above the alarm set point for ≥ 10 minutes, with no CRD pump operating, at least once per 24 months, conducted per TRS 3.1.4.3.

Proper closure of the cooling water header check valves (147138-XXX) will be verified by venting of the cooling water header during Primary Containment Integrated Leakage Testing, conducted per TS 5.5.12.

RELIEF REQUEST NUMBER 23

System	P&ID	Valve	System	P&ID	Valve
RPV	M-141	XV-141F009	RPV (cont'd)	M-142	XV-142F051B
Main Steam	M-141	XV-141F070A			XV-142F051C
		XV-141F070B			XV-142F051D
		XV-141F070C			XV-142F053A
		XV-141F070D			XV-142F053B
		XV-141F071A			XV-142F053C
		XV-141F071B			XV-142F053D
		XV-141F071C			XV-142F055
		XV-141F071D			XV-142F057
		XV-141F072A			XV-142F059A
		XV-141F072B			XV-142F059B
		XV-141F072C			XV-142F059C
		XV-141F072D			XV-142F059D
		XV-141F073A			XV-142F059E
		XV-141F073B			XV-142F059F
		XV-141F073C			XV-142F059G
		XV-141F073D			XV-142F059H
RPV	M-142	XV-14201			XV-142F059L
		XV-14202			XV-142F059M
		XV-142F041			XV-142F059N
		XV-142F043A			XV-142F059P
		XV-142F043B			XV-142F059R
		XV-142F045A			XV-142F059S
		XV-142F045B			XV-142F059T
		XV-142F047A			XV-142F059U
		XV-142F047B			XV-142F061
		XV-142F051A			

RELIEF REQUEST NUMBER 23 (Cont'd)

System	P&ID	Valve	System	P&ID	Valve
RXR	M-143	XV-143F003A	RWCU	M-144	XV-14411A
		XV-143F003B			XV-14411B
		XV-143F004A			XV-14411C
		XV-143F004B			XV-14411D
		XV-143F009A			XV-144F046
		XV-143F009B	RCIC	M-149	XV-149F044A
		XV-143F009C			XV-149F044B
		XV-143F009D			XV-149F044C
		XV-143F010A			XV-149F044D
		XV-143F010B	HPCI	M-155	XV-155F024A
		XV-143F010C			XV-155F024B
		XV-143F010D			XV-155F024C
		XV-143F011A			XV-155F024D
		XV-143F011B	RHR	M-151	XV-15109A
		XV-143F011C			XV-15109B
		XV-143F011D			XV-15109C
		XV-143F012A			XV-15109D
		XV-143F012B	CORE SPRAY	M-152	XV-152F018A
		XV-143F012C			XV-152F018B
		XV-143F012D			
		XV-143F040A			
		XV-143F040B			
		XV-143F040C			
		XV-143F040D			
		XV-143F057A			
		XV-143F057B			

RELIEF REQUEST NUMBER 23 (Cont'd)

Category: C

Class: 1

Function: Containment Isolation

Impractical Test Requirement:

1. Exercise test valve one per 92 days. (OMa – 1988 Part 10 paragraph 4.3.2)

2. Valve Position Verification once every 2 years (OMa - 1988 Part 10 Paragraph 4.1)

Basis for Deferment:

Excess flow check valves are installed on instrument lines penetrating containment in accordance with Regulatory Guide 1.11. The lines are sized and/or orificed such that off-site doses will be substantially below 10CFR100 limits in the event of a rupture. Therefore, individual leak rate testing of these valves is not required for conformance with 10CFR50, Appendix J requirements.

The excess flow check valve is a simple device; the major components are a poppet and spring. The spring holds the poppet open under static conditions. The valve will close upon sufficient differential pressure across the poppet. Functional testing of the valve is accomplished by venting the instrument side of the tube. The resultant increase in flow imposes a differential pressure across the poppet, which compresses the spring and decreases flow through the valve. Functional testing is required by Technical Specification SR 3.6.1.3.9. Systems design does not include test taps upstream of the Excess Flow Check Valves. For this reason, the EFCV's cannot be isolated and tested using a pressure source other than reactor pressure.

RELIEF REQUEST NUMBER 23 (Cont'd)

The testing described above requires the removal of the associated instrument or instruments from service. Since these instruments are in use during plant operation, removal of any of these instruments from service may cause a spurious signal which could result in a plant trip or an unnecessary challenge to safety systems. Additionally, process liquid will be contaminated to some degree, requiring special measures to collect flow from the vented instrument side and also will contribute to an increase in personnel radiation exposure.

Industry experience as documented in NEDO-32977-A indicates that EFCVs have a very low failure rate. At Susquehanna the SR failure rate has been approximately 1%. Only half of these SR failures have resulted in replacement of the EFCV. The Susquehanna test history shows no evidence of common mode failure. This Susquehanna test experience is consistent with the findings of the NEDO. The NEDO indicates similarly that many reported test failures at other plants were related to test methodologies and not actual EFCV failures. Thus, the EFCVs at Susquehanna, consistent with the industry, have exhibited a high degree of reliability, availability, and provide an acceptable level of quality and safety.

Therefore, PPL Susquehanna LLC requests relief pursuant to 10CFR50.55a(a)(3)(i) to test excess flow check valves at the frequency specified in the Susquehanna Technical Specifications Surveillance Requirements (SR) 3.6.1.3.9. As discussed in the Technical Specification Bases for this SR, this test provides assurance that each valve actuates to check flow on a simulated instrument line break.

RELIEF REQUEST NUMBER 23 (Cont'd)

Testing on a Cold Shutdown frequency is impractical considering the large number of valves to be tested and the condition that reactor pressure >500 psig is needed for testing. NUREG-1482 allows test deferrals to refueling outages if it is impractical to test quarterly or during cold shutdowns. In this instance, considering the large number of valves to be tested and the conditions required for testing (Reactor pressure), it is also a hardship to test all these valves during refueling outages. Recent improvements in Refueling Outage schedules (i.e. shorter outages) minimized the time that is planned for Refueling and testing activities during the outages. The appropriate time for performing these excess flow check valves tests during refueling outages is in conjunction with vessel hydrostatic testing. As a result of shorter outages, decay heat levels during hydrostatic tests are higher than in the past. If the hydrostatic test was extended to test all EFCV's, the vessel could require depressurization several times to avoid exceeding the maximum bulk coolant temperature limit. This is an evolution which challenges the reactor operators and thermally cycles the reactor vessel and should be avoided if possible. Also, based on past experience, excess flow check valve testing during hydrostatic testing becomes the outage critical path and could possibly extend the outage by 2 days if all EFCV's were to be tested during this time frame.

RELIEF REQUEST NUMBER 23 (Cont'd)

A proposed alternative to testing all EFCVs during the refueling outage would be to test certain excess flow check valves immediately preceding the refueling outage while the reactor is at power, while also instituting the appropriate administrative and scheduling controls. This provides the appropriate conditions for testing (Reactor pressure >500 psig), while also providing an acceptable level of quality and safety. Performance of the excess flow check valve testing prior to the outage will be scheduled such that, in the event of a failure, the resulting action statement and limiting condition of operation will encompass the planned shutdown for the refueling outage. Using this strategy, unplanned, unnecessary plant shutdowns as a result of excess flow check valve testing will be avoided.

In summary, considering the extremely low failure rate, personnel and plant safety concerns, the hardship of testing during refueling outages, EFCV testing during refueling outages for all EFCVs is impractical and results in a hardship without a compensating increase in the level of safety.

Alternate Testing:

Functional testing with verification that flow is checked will be performed per TS 3.6.1.3.9, either immediately preceding a planned Refueling Outage or during the Refueling Outage. For those valves tested prior to the Refueling Outage appropriate administrative and scheduling controls will be established.

SR 3.6.1.3.9 allows a "representative sample" of EFCVs to be tested every 24 months, such that each EFCV will be tested at least once every 10 years (nominal).

The EFCVs have position indication in the control room. Check valve remote position indication is excluded from Regulatory Guide 1.97 as a required parameter for evaluating containment isolation. The remote position indication will be verified in the closed direction at the same frequency as the exercise test, which will be performed at the frequency prescribed in Technical Specification Surveillance Requirement 3.6.1.3.9. After the close position test, the valves will be reset, and the remote open position indication will be verified. Although inadvertent actuation of an EFCV during operation is highly unlikely due to the spring-poppet design, Susquehanna verifies the EFCVs indicate open in the control room at a frequency greater than once every 2 years.

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 2

INSERVICE INSPECTION PROGRAM PLAN

FOR

PUMP AND VALVE OPERATIONAL TESTING

Rev.	Description	Prepared by:	Approved by:	Date
5	Responses to NRC Comments	Signatures on File		
6	Addition of Water Level Backfill Valves	Signatures on File		
7	10 Year ASME Code Update	Signatures on File		
8	Corrections to Valve Tables	Signatures on File		
9	Addition of Fuel Pool Cooling Valves	Signatures on File		
10	Responses to NRC Comments and Additional Changes	Signatures on File		
11	Response to NRC Comments on RR#23 Excess Flow Check Valves	Signatures on File		
12	Response to NRC Comments on ROJ-21 FPC Manual Valves	Signatures on File		
13	Miscellaneous changes	Signatures on File		
14	Incorporate Improved Tech Spec/TRM and Miscellaneous Changes	Signatures on File		
15	Incorporate Revision to RR23 Excess Flow Check Valves and Miscellaneous Changes	Becky Matters	Joe Bryan	7/27/01

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT 2
PUMP AND VALVE INSERVICE INSPECTION
TESTING PROGRAM

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NUCLEAR BOILER M-2141 Sheet 1

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
241F024A	A-5	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ05	-	Closure test only.
241F024B	A-5	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ05	-	Closure test only.
241F024C	A-5	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ05	-	Closure test only.
241F024D	A-5	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ05	-	Closure test only.
241F029A	A-7	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ05	-	Closure test only.
241F029B	A-7	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ05	-	Closure test only.
241F029C	A-7	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ05	-	Closure test only.
241F029D	A-7	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ05	-	Closure test only.
241F036A	B-4	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ06	-	Closure test only.
241F036B	B-4	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ06	-	Closure test only.
241F036C	B-4	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ06	-	Closure test only.
241F036D	B-4	3	C	A	1	CK	SA	-	C	FS	FS	RF	RJ06	-	Closure test only.

CONTROL ROD DRIVE M-2147 Sheet 2

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
247114*	A-8	S	C	A	3/4	CK	SA	--	O	FS	FS	RF	--	RR06	Open test only.
247115*	D-8	S	C	A	1/2	CK	SA	--	C	FS	FS	RF	--	RR06	Closure test only.
247138*	D-4	S	C	A	1/2	CK	SA	--	C	FS	FS	RF	--	RR06	Closure test only.
XV-247126*	D-6	2	B	A	1/2	GB	AO	--	O	FS ST	FS --	RF --	-- --	RR06 RR06	Open test only.
XV-247127*	A-6	2	B	A	1/2	GB	AO	--	O	FS ST	FS --	RF --	-- --	RR06 RR06	Open test only.

* There is a total of 185 sets of these valves, one for each of the 185 CRD Hydraulic Control Units.

REACTOR CORE ISOLATION COOLING M-2149 (Continued)

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
HV-249F026	G-8	2	B	A	1	GB	AO	X	O/C	FS ST PI	FS ST PI	Q Q 2Y	-- -- --	-- -- --	
HV-249F031	H-2	2	B	A	6	GT	MO	X	O/C	FS ST PI --	FS ST PI --	Q Q 2Y --	-- -- -- --	-- -- -- --	T. S. Approved Amendment #119.
HV-249F059	G-3	2	A	A	10	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	
HV-249F060	G-3	2	A	A	2	GB	MO	X	O/C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	

REACTOR CORE ISOLATION COOLING M-2149 (Continued)

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
HV-249F062	F-4	2	A	A	2	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	
HV-249F084	F-3	2	A	A	2	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	
HV-249F088	C-3	1	A	A	1	GB	AO	X	O/C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	-- -- -- --	-- -- -- --	
XV-249F044A	A-3	1	C	A	1	XC	SA	X	C	FS PI	FS PI	RF 2Y	-- --	RR23 --	
XV-249F044B	D-4	1	C	A	1	XC	SA	X	C	FS PI	FS PI	RF 2Y	-- --	RR23 --	

HIGH PRESSURE COOLANT INJECTION M-2155 (Continued)

Valve Number	P&ID Coordinates	ASME Class	ASME Category	Active/Passive	Valve Size (inches)	Valve Type	Actuator Type	Remote Position Indication	Safety Position	Tests Required	Tests Performed	Test Frequency	CS/RO Justification	Relief Request(s)	Remarks
HV-255F066	G-3	2	A	A	20	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	- - - -	- - - -	
HV-255F075	F-4	2	A	A	3	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	- - - -	- - - -	
HV-255F079	F-3	2	A	A	3	GT	MO	X	C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	- - - -	- - - -	
HV-255F100	B-3	1	A	A	1	GB	AO	X	O/C	FS ST PI LJ	FS ST PI LJ	Q Q 2Y 2Y	- - - -	- - - -	

REFUELING OUTAGE TEST JUSTIFICATION NUMBER 20

REFUEL TEST JUSTIFICATION HAS BEEN WITHDRAWN

RELIEF REQUEST NUMBER 06

System: Control Rod Drive

P&ID: M-2147

Valves	Category	Class
247114-001 through 247114-185	C	S
247115-001 through 247115-185	C	S
XV-247126-001 through XV-247126-185	B	2
XV-247127-001 through XV-247127-185	B	2
247138-001 through 247138-185	C	S

Function: Control Rod Scram

Impractical Test Requirement: Exercise valves once per 92 days and measure stroke times.

Basis for Relief: These valves, located on the hydraulic control units for the 185 control rod drives, perform the active safety function of rapidly inserting the control rods into the reactor core, upon receipt of a reactor scram signal from the reactor protection system. Exercising these valves quarterly during power operations could result in the rapid insertion of one or more control rods more frequently than desired. Where testing could result in the rapid insertion of control rods, thereby causing rapid reactivity transients and wear of the control rod drive mechanisms, the control rod scram test frequency identified in the Plant Technical Specifications will be utilized as the valve testing frequency.

Normal control rod motion has been shown to be an indicator that the associated cooling water header check valve (247138 -001 through -185) moves to its safety position (closed). Normal control rod motion may not occur if this check valve were to fail in the open position. An additional positive test of the closure of this valve can be provided by venting of the cooling water header during Primary Containment Integrated Leakage Testing, conducted per TS 5.5.12.

Normal control rod motion does not serve as an indicator that any scram discharge header check valve (247114 -001 through -185) moves to its safety position (open), however. Since this check valve is moved to its open position only by scram exhaust flow, a positive test of the opening of the valve can only be provided by the periodic scram testing and control rod insertion timing specified by SR 3.1.3.4.

RELIEF REQUEST NUMBER 06 (Cont'd)

Verification that any charging water header check valve (247115 -001 through -185) moves to its safety position (closed), requires that the control rod drive pumps be stopped to depressurize the charging water header. This test cannot be performed during power operations because stopping the pumps would result in loss of cooling water to all control rod drive mechanisms and seal damage could result. This test cannot be performed during each cold shutdown because the control rod drive pumps supply seal water to the reactor recirculation pumps and one of the recirculation pumps might be kept running, thus continuing to need its seal water supply. The HCU accumulator pressure decay test, specified by TRS 3.1.4.3, provides verification of the closure of its charging water header check valve.

The scram inlet valves (XV-247126 -001 through -185) and the scram exhaust valves (XV-247127 -001 through -185) are air operated valves that full-stroke in milliseconds and are not equipped with position indication, thereby rendering measurement of their full-stroke times impractical. Verifying that the control rod associated with each pair of these valves meets the periodic scram testing rod insertion time limits, specified by SR 3.1.3.4, is an acceptable alternate method of detecting degradation of these valves. Since these measurements of control rod insertion times are subject to the conservative limitations of SR 3.1.4.1, 3.1.4.2, 3.1.4.3 and 3.1.4.4, and because these measurements cannot be meaningfully correlated with the full-stroke times of the scram inlet and exhaust valves, trending of these scrams time measurements in any manner comparable to that of valve stroke times is both impractical and unnecessary.

These bases for relief from applicable code testing requirements for these individual control rod scram valves are intended to conform to those provided as guidance by NRC Generic Letter 89-04 (Position #7).

RELIEF REQUEST NUMBER 06 (Cont'd)

Alternative Testing: Proper functioning of the scram discharge header check valves (247114-XXX), of the scram inlet valves (XV-27126-XXX), and of the scram exhaust valves (XV-247127-XXX) will be verified by periodic scram testing and control rod insertion timing, with reactor pressure ≥ 950 psig, conducted per SR 3.1.3.4 and SR's 3.1.4.1, 3.1.4.2, 3.1.4.3 and 3.1.4.4.

a) For all control rods prior to thermal power exceeding 40% of rated thermal power, following core alternations or after a reactor shutdown that is greater than 120 days.

b) For specifically affected individual control rods, following maintenance or modification to the control rod or control rod drive system, which could affect the scram insertion time of those specific control rods.

c) For a representative sample of the control rods, at least once per 120 days of power operation.

d) For specifically affected individual control rods prior to thermal power exceeding 40% rated thermal power, following maintenance or modification to the control rod or control rod drive system which could affect the scram insertion time of those specific control rods.

Proper closure of the charging water header check valves (247115-XXX) will be verified by the demonstration that each individual accumulator check valve maintains its associated accumulator pressure above the alarm set point for ≥ 10 minutes, with no CRD pump operating, at least once per 24 months, conducted per TRS 3.1.4.3.

Proper closure of the cooling water header check valves (247138-XXX) will be verified by venting of the cooling water header during Primary Containment Integrated Leakage Testing, conducted per TS 5.5.12.

RELIEF REQUEST NUMBER 23

System	P&ID	Valve	System	P&ID	Valve
RPV	M-2141	XV-241F009	RPV (continued)		XV-242F051B
Main Steam	M-2141	XV-241F070A			XV-242F051C
		XV-241F070B			XV-242F051D
		XV-241F070C			XV-242F053A
		XV-241F070D			XV-242F053B
		XV-241F071A			XV-242F053C
		XV-241F071B			XV-242F053D
		XV-241F071C			XV-242F055
		XV-241F071D			XV-242F057
		XV-241F072A			XV-242F059A
		XV-241F072B			XV-242F059B
		XV-241F072C			XV-242F059C
		XV-241F072D			XV-242F059D
		XV-241F073A			XV-242F059E
		XV-241F073B			XV-242F059F
		XV-241F073C			XV-242F059G
		XV-241F073D			XV-242F059H
RPV	M-2142	XV-24201			XV-242F059L
		XV-24202			XV-242F059M
		XV-242F041			XV-242F059N
		XV-242F043A			XV-242F059P
		XV-242F043B			XV-242F059R
		XV-242F045A			XV-242F059S
		XV-242F045B			XV-242F059T
		XV-242F047A			XV-242F059U
		XV-242F047B			XV-242F061
		XV-242F051A			

RELIEF REQUEST NUMBER 23 (Cont'd.)

System	P&ID	Valve	System	P&ID	Valve
RXR (cont'd)	M-2143	XV-243F003A	RWCU	M-2144	XV-24411A
		XV-243F003B			XV-24411B
		XV-243F004A			XV-24411C
		XV-243F004B			XV-24411D
		XV-243F009A			XV-244F046
		XV-243F009B	RCIC	M-2149	XV-249F044A
		XV-243F009C			XV-249F044B
		XV-243F009D			XV-249F044C
		XV-243F010A			XV-249F044D
		XV-243F010B	HPCI	M-2155	XV-255F024A
		XV-243F010C			XV-255F024B
		XV-243F010D			XV-255F024C
		XV-243F011A			XV-255F024D
		XV-243F011B	RHR	M-2151	XV-25109A
		XV-243F011C			XV-25109B
		XV-243F011D			XV-25109C
		XV-243F012A			XV-25109D
		XV-243F012B	CORE SPRAY	M-2152	XV-252F018A
		XV-243F012C			XV-252F018B
		XV-243F012D			
		XV-243F040A			
		XV-243F040B			
		XV-243F040C			
		XV-243F040D			
		XV-243F057A			
		XV-243F057B			

RELIEF REQUEST NUMBER 23 (Cont'd.)

Category:	C
Class:	1
Function:	Containment Isolation
Impractical Test Requirement:	1. Exercise test valve once per 92 days. (OMa – 1988 Part 10 paragraph 4.3.2) 2. Valve Position Verification once every 2 years (OMa - 1988 Part 10 Paragraph 4.1)
Basis for Deferment:	Excess flow check valves are installed on instrument lines penetrating containment in accordance with Regulatory Guide 1.11. The lines are sized and/or orificed such that off-site doses will be substantially below 10CFR100 limits in the event of a rupture. Therefore, individual leak rate testing of these valves is not required for conformance with 10CFR50, Appendix J requirements. The excess flow check valve is a simple device; the major components are a poppet and spring. The spring holds the poppet open under static conditions. The valve will close upon sufficient differential pressure across the poppet. Functional testing of the valve is accomplished by venting the instrument side of the tube. The resultant increase in flow imposes a differential pressure across the poppet, which compresses the spring and decreases flow through the valve. Functional testing is required by Technical Specification SR 3.6.1.3.9. Systems design does not include test taps upstream of the Excess Flow Check Valves. For this reason, the EFCV's cannot be isolated and tested using a pressure source other than reactor pressure.

RELIEF REQUEST NUMBER 23 (Cont'd.)

The testing described above requires the removal of the associated instrument or instruments from service. Since these instruments are in use during plant operation, removal of any of these instruments from service may cause a spurious signal which could result in a plant trip or an unnecessary challenge to safety systems. Additionally, process liquid will be contaminated to some degree, requiring special measures to collect flow from the vented instrument side and also will contribute to an increase in personnel radiation exposure.

Industry experience as documented in NEDO032977-A indicates that EFCVs have a very low failure rate. At Susquehanna the SR failure rate has been approximately 1%. Only half of these SR failures have resulted in replacement of the EFCV. The Susquehanna test history shows no evidence of common mode failure. This Susquehanna test experience is consistent with the findings of the NEDO. The NEDO indicates similarly that many reported test failures at other plants were related to test methodologies and not actual EFCV failures. Thus, the EFCVs at Susquehanna, consistent with the industry, have exhibited a high degree of reliability, availability, and provide an acceptable level of quality and safety.

Therefore, PPL Susquehanna LLC requests relief pursuant to 10CFR50.55a(a)(3)(I) to test excess flow check valves at the frequency specified in the Susquehanna Technical Specifications Surveillance Requirements (SR) 3.6.1.3.9. As discussed in the Technical Specification Bases for this SR, this test provides assurance that each valve actuates to check flow on a simulated instrument line break.

Testing on a Cold Shutdown frequency is impractical considering the large number of valves to be tested and the condition that reactor pressure >500 psig is needed for testing.

RELIEF REQUEST NUMBER 23 (Cont'd.)

NUREG-1482 allows test deferrals to refueling outages if it is impractical to test quarterly or during cold shutdowns. In this instance, considering the large number of valves to be tested and the conditions required for testing (Reactor pressure), it is also a hardship to test all these valves during refueling outages. Recent improvements in Refueling Outage schedules (i.e. shorter outages) minimized the time that is planned for Refueling and testing activities during the outages. The appropriate time for performing these excess flow check valve tests during refueling outages is in conjunction with vessel hydrostatic testing. As a result of shorter outages, decay heat levels during hydrostatic tests are higher than in the past. If the hydrostatic test was extended to test all EFCV's, the vessel could require depressurization several times to avoid exceeding the maximum bulk coolant temperature limit of 212 degrees F. This is an evolution which challenges the reactor operators and thermally cycles the reactor vessel and should be avoided if possible. Also, based on past experience, excess flow check valve testing during hydrostatic testing becomes the outage critical path and could possibly extend the outage by 2 days if all EFCV's were to be tested during this time frame.

A proposed alternative to testing all EFCVs during the refueling outage would be to test certain excess flow check valves immediately preceding the refueling outage while the reactor is at power, while also instituting the appropriate administrative and scheduling controls. This provides the appropriate conditions for testing (Reactor pressure >500 psig), while also providing an acceptable level of quality and safety. Performance of the excess flow check valve testing prior to the outage will be scheduled such that, in the event of a failure, the resulting action statement and limiting condition of operation will encompass the planned shutdown for the refueling outage. Using this strategy, unplanned, unnecessary plant shutdowns as a result of excess flow check valve testing will be avoided.

In summary, considering the extremely low failure rate, personnel and plant safety concerns, the hardship of testing during refueling outages, EFCV testing during refueling outages is impractical and results in a hardship without a compensating increase in the level of safety.

RELIEF REQUEST NUMBER 23 (Cont'd.)

Alternative Testing:

Functional testing with verification that flow is checked will be performed per TS 3.6.1.3.9, either immediately preceding a planned Refueling Outage or during the Refueling Outage. For those valves tested prior to the Refueling Outage the appropriate administrative and scheduling controls will be established.

SR 3.6.1.3.9 allows a "representative sample" of EFCVs to be tested every 24 months, such that each EFCV will be tested at least once every 10 years (nominal).

The EFCVs have position indication in the control room. Check valve remote position indication is excluded from Regulatory Guide 1.97 as a required parameter for evaluating containment isolation. The remote position indication will be verified in the closed direction at the same frequency as the exercise test, which will be performed at the frequency prescribed in Technical Specification Surveillance Requirement 3.6.1.3.9. After the close position test, the valves will be reset, and the remote open position indication will be verified. Although inadvertent actuation of an EFCV during operation is highly unlikely due to the spring-poppet design, Susquehanna verifies the EFCVs indicate open in the control room at a frequency greater than once every 2 years.