



ENTERGY

Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61
P.O. Box 220
St. Francisville, LA 70775
Tel 504 336 6225
Fax 504 635 5068

James J. Fisicaro
Director
Nuclear Safety

June 23, 1995

U. S. Nuclear Regulatory Commission
Document Control Desk
Mail Stop P1-37
Washington, D. C. 20555

Subject: River Bend Station - Unit 1
Docket No. 50-458
License No. NPF-47
Valve Relief Request VRR-71 - Additional Information

References: RBG-41045, "Valve Relief Requests VRR-71 and VRR-72," dated November 4, 1994

File Nos.: G9.5, G224.600

RBFI-95-0155
RBG-41636

Gentlemen:

Entergy Operations, Inc. (EOI) submitted Valve Relief Requests VRR-71 and VRR-72 for River Bend Station (RBS) to the NRC via the referenced letter. In a telephone conversation conducted on June 19, 1995, NRC and Entergy Operations, Inc. (EOI) personnel discussed these requests. During the conversation, NRC personnel requested that EOI provide descriptions of the valves associated with VRR-71. In response to that request, please find enclosed the pertinent valve fact sheets taken from the RBS Inservice Testing Basis Document.

If you have any further questions, please contact Mr. Guy Davant of my staff at (504) 336-6223.

Sincerely,

JJF/ghd
enclosures

28000
9506290224 950623
PDR ADDCK 05000458
P PDR

AO47.1

Valve Relief Request VRR-71 - Additional Information
RBF1-95-0155
RBG-41636
Page 2 of 2

cc: Mr. David L. Wigginton
U. S. Nuclear Regulatory Commission
11555 Rockville Pike
M/S OWFN 13-H-3
Rockville, MD 20852

NRC Resident Inspector
P. O. Box 1051
St. Francisville, LA 70775

U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1B21*VF024A

System Name Main Steam

System No 109

P&ID No 3-1A

Coord F-14

Valve Type Check

Valve Actuator Self Actuated Size 2 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position OC

Relief Request 39

71

Valve Description:

This MSIV Accumulator check valve has an active safety function to open to allow air flow into the accumulator as needed.

This check valve also has an active safety function in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

Safety Function Valve :

This valve has a safety function in the open direction to allow air flow into the MSIV accumulator and in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

References:

USAR 5.2, 7.3.1, and 10.3.
Technical Specification 4.0.5 and 3/4.4.3
SDRD-P29 and P30

Current Testing

CV-O: Forward flow test at cold shutdown.
CV-C: Reverse flow test at cold shutdown.

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1B21*VF024B

System Name Main Steam

System No 109

P&ID No 3-1A

Coord L-7

Valve Type Check

Valve Actuator Self Actuated Size 2 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position OC

Relief Request 39

71

Valve Description:

This MSIV Accumulator check valve has an active safety function to open to allow air flow into the accumulator as needed.

This check valve also has an active safety function in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

Safety Function Valve :

This valve has a safety function in the open direction to allow air flow into the MSIV accumulator and in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

References:

USAR 5.2, 7.3.1, and 10.3.
Technical Specification 4.0.5 and 3/4.4.3
SDRD-P29 and P30

Current Testing

CV-O: Forward flow test at cold shutdown.
CV-C: Reverse flow test at cold shutdown.

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1B21*VF024C

System Name Main Steam

System No 109

P&ID No 3-1A

Coord L-15

Valve Type Check

Valve Actuator Self Actuated Size 2 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position OC

Relief Request 39

71

Valve Description:

This MSIV Accumulator check valve has an active safety function to open to allow air flow into the accumulator as needed.

This check valve also has an active safety function in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

Safety Function Valve :

This valve has a safety function in the open direction to allow air flow into the MSIV accumulator and in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

References:

USAR 5.2, 7.3.1, and 10.3.
Technical Specification 4.0.5 and 3/4.4.3
SDRD-P29 and P30

Current Testing

CV-O: Forward flow test at cold shutdown.
CV-C: Reverse flow test at cold shutdown.

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1B21*VF024D

System Name Main Steam

System No 109

P&ID No 3-1A

Coord G-7

Valve Type Check

Valve Actuator Self Actuated Size 2 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position OC

Relief Request 39

71

Valve Description:

This MSIV Accumulator check valve has an active safety function to open to allow air flow into the accumulator as needed.

This check valve also has an active safety function in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

Safety Function Valve :

This valve has a safety function in the open direction to allow air flow into the MSIV accumulator and in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

References:

USAR 5.2, 7.3.1, and 10.3.
Technical Specification 4.0.5 and 3/4.4.3
SDRD-P29 and P30

Current Testing

CV-O: Forward flow test at cold shutdown.
CV-C: Reverse flow test at cold shutdown.

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1B21*VF029A

System Name Main Steam

System No 109

P&ID No 3-1C

Coord K-17

Valve Type Check

Valve Actuator Self Actuated Size 2 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position OC

Relief Request 39

71

Valve Description:

This MSIV Accumulator check valve an active safety function to open to allow air flow into the accumulator as needed.

This check valve also has an active safety function in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

Safety Function Valve :

This valve has a safety function in the open direction to allow air flow into the MSIV accumulator and in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

References:

USAR 5.2, 7.3.1, and 10.3.
Technical Specification 4.0.5 and 3/4.4.3
SDRD-P29 and P30

Current Testing

CV-O: Forward flow test at cold shutdown.
CV-C: Reverse flow test at cold shutdown.

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1B21*VF029B

System Name Main Steam

System No 109

P&ID No 3-1C

Coord N-17

Valve Type Check

Valve Actuator Self Actuated Size 2 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position OC

Relief Request 39

71

Valve Description:

This MSIV Accumulator check valve an active safety function to open to allow air flow into the accumulator as needed.

This check valve also has an active safety function in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

Safety Function Valve :

This valve has a safety function in the open direction to allow air flow into the MSIV accumulator and in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

References:

USAR 5.2, 7.3.1, and 10.3.
Technical Specification 4.0.5 and 3/4.4.3
SDRD-P29 and P30

Current Testing

CV-O: Forward flow test at cold shutdown.
CV-C: Reverse flow test at cold shutdown.

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1B21*VF029C

System Name Main Steam

System No 109

P&ID No 3-1C

Coord H-17

Valve Type Check

Valve Actuator Self Actuated Size 2 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position OC

Relief Request 39

71

Valve Description:

This MSIV Accumulator check valve an active safety function to open to allow air flow into the accumulator as needed.

This check valve also has an active safety function in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

Safety Function Valve :

This valve has a safety function in the open direction to allow air flow into the MSIV accumulator and in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

References:

USAR 5.2, 7.3.1, and 10.3.
Technical Specification 4.0.5 and 3/4.4.3
SDRD-P29 and P30

Current Testing

CV-O: Forward flow test at cold shutdown.
CV-C: Reverse flow test at cold shutdown.

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1B21*VF029D

System Name Main Steam

System No 109

P&ID No 3-1C

Coord L-17

Valve Type Check

Valve Actuator Self Actuated Size 2 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position OC

Relief Request 39

71

Valve Description:

This MSIV Accumulator check valve an active safety function to open to allow air flow into the accumulator as needed.

This check valve also has an active safety function in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

Safety Function Valve :

This valve has a safety function in the open direction to allow air flow into the MSIV accumulator and in the closed direction to ensure the accumulators provide air to the MSIVs for closure following failure of the pneumatic supply.

References:

USAR 5.2, 7.3.1, and 10.3.
Technical Specification 4.0.5 and 3/4.4.3
SDRD-P29 and P30

Current Testing

CV-O: Forward flow test at cold shutdown.
CV-C: Reverse flow test at cold shutdown.

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1SWP*V1091

System Name Normal Service Water

System No 118

P&ID No 9-10F

Coord A-17

Valve Type Check

Valve Actuator Self Actuated Size 3/4 inch

ISI Class 2

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position O

Relief Request 30

71

Valve Description:

This valve is the vacuum release check valve for the containment unit coolers Division I Standby Service Water return header piping. On loss of normal service water pressure, a vacuum could be created in the SSW piping from a column separation phenomenon. This valve opens to allow air in to fill these potential voids and reduce the effects of water hammer on the service water piping when the SSW pumps start.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the standby service water piping to prevent a possible vacuum from developing due to a loss of normal service water.

References:

USAR 9.2.1 and 9.2.7
Technical Specification 4.0.5 and 3/4.7.1
SDRD-P49, "Service Water System"
LOTM-42-4, "Standby Service Water"

Required Testing

CV-O Forward flow test cold shutdown

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1SWP*V1092

System Name Normal Service Water System No 118

P&ID No <u>9-10F</u>	Coord <u>B-12</u>
Valve Type <u>Check</u>	Valve Actuator <u>Self Actuated</u> Size <u>3/4 inch</u>
ISI Class <u>2</u>	ISI Category <u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position <u>C</u>	Safety Position <u>O</u>
Relief Request <u>30</u>	<u>71</u>

Valve Description:

This valve is the vacuum release check valve for the containment unit coolers Division II Standby Service Water return header piping. On loss of normal service water pressure, a vacuum could be created in the SSW piping from a column separation phenomenon. This valve opens to allow air in to fill these potential voids and reduce the effects of water hammer on the service water piping when the SSW pumps start.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the standby service water piping to prevent a possible vacuum from developing due to a loss of normal service water.

References:

USAR 9.2.1 and 9.2.7
Technical Specification 4.0.5 and 3/4.7.1
SDRD-P49, "Service Water System"
LOTM-42-4, "Standby Service Water"

Required Testing

CV-O Forward flow test cold shutdown

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1SWP*V1095

System Name Normal Service Water

System No 118

P&ID No 9-10F

Coord B-18

Valve Type Check

Valve Actuator Self Actuated Size 3/4 inch

ISI Class 2

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position O

Relief Request 30

71

Valve Description:

This valve is the vacuum release check valve for the containment unit coolers Division I Standby Service Water return header piping. On loss of normal service water pressure, a vacuum could be created in the SSW piping from a column separation phenomenon. This valve opens to allow air in to fill these potential voids and reduce the effects of water hammer on the service water piping when the SSW pumps start.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the standby service water piping to prevent a possible vacuum from developing due to a loss of normal service water.

References:

USAR 9.2.1 and 9.2.7
Technical Specification 4.0.5 and 3/4.7.1
SDRD-P49, "Service Water System"
LOTM-42-4, "Standby Service Water"

Required Testing

CV-O Forward flow test cold shutdown

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1SWP*V1098

System Name Normal Service Water

System No 118

P&ID No 9-10F

Coord B-13

Valve Type Check

Valve Actuator Self Actuated Size 3/4 inch

ISI Class 2

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position O

Relief Request 30

71

Valve Description:

This valve is the vacuum release check valve for the containment unit coolers Division II Standby Service Water return header piping. On loss of normal service water pressure, a vacuum could be created in the SSW piping from a column separation phenomenon. This valve opens to allow air in to fill these potential voids and reduce the effects of water hammer on the service water piping when the SSW pumps start.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the standby service water piping to prevent a possible vacuum from developing due to a loss of normal service water.

References:

USAR 9.2.1 and 9.2.7
Technical Specification 4.0.5 and 3/4.7.1
SDRD-P49, "Service Water System"
LOTM-42-4, "Standby Service Water"

Required Testing

CV-O Forward flow test cold shutdown

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1SWP*V1102

System Name Normal Service Water System No 118

P&ID No <u>9-10C</u>	Coord <u>M-13</u>
Valve Type <u>Check</u>	Valve Actuator <u>Self Actuated</u> Size <u>3/4 inch</u>
ISI Class <u>3</u>	ISI Category <u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position <u>C</u>	Safety Position <u>O</u>
Relief Request <u>30</u>	<u>71</u>

Valve Description:

This valve is the vacuum release check valve for the auxiliary building unit coolers Division I Standby Service Water return header piping. On loss of normal service water pressure, a vacuum could be created in the SSW piping from a column separation phenomenon. This valve opens to allow air in to fill these potential voids and reduce the effects of water hammer on the service water piping when the SSW pumps start.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the standby service water piping to prevent a possible vacuum from developing due to a loss of normal service water.

References:

USAR 9.2.1 and 9.2.7
Technical Specification 4.0.5 and 3/4.7.1
SDRD-P49, "Service Water System"
LOTM-42-4, "Standby Service Water"

Required Testing

CV-O Forward flow test cold shutdown

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1SWP~V1103

System Name Normal Service Water

System No 118

P&ID No 9-10F

Coord M-11

Valve Type Check

Valve Actuator Self Actuated Size 3/4 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position O

Relief Request 30

71

Valve Description:

This valve is the vacuum release check valve for the auxiliary building unit coolers Division II Standby Service Water return header piping. On loss of normal service water pressure, a vacuum could be created in the SSW piping from a column separation phenomenon. This valve opens to allow air in to fill these potential voids and reduce the effects of water hammer on the service water piping when the SSW pumps start.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the standby service water piping to prevent a possible vacuum from developing due to a loss of normal service water.

References:

USAR 9.2.1 and 9.2.7
Technical Specification 4.0.5 and 3/4.7.1
SDRD-P49, "Service Water System"
LOTM-42-4, "Standby Service Water"

Required Testing

CV-O Forward flow test cold shutdown

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1IAS*V3095

System Name Instrument Air

System No 122

P&ID No 12-1B

Coord F-2

Valve Type Check

Valve Actuator Self Actuated Size 3/4 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position O

Relief Request 71

Valve Description:

This valve is the bottle air supply to accumulator tank 1IAS*TK5A check valve. It is normally closed with normal instrument air supplying the accumulator. It opens to allow the bottles to supply air to the accumulator, on loss of instrument air header pressure, to ensure air is available to operate the dampers.

Valve Safety Function:

This valve has a safety function in the open direction to allow bottle air to instrument air accumulator tank 1IAS*TK5A.

References:

USAR 9.3.1
Technical Specification 4.0.5
SDRD-P48, "Compressed Air Systems"
LOTM-44-4, "Plant Air Systems"

Required Testing

CV-O Forward flow test quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1IAS*V3096

System Name Instrument Air

System No 122

P&ID No <u>12-1B</u>	Coord <u>F-4</u>	
Valve Type <u>Check</u>	Valve Actuator <u>Self Actuated</u>	Size <u>3/4 inch</u>
ISI Class <u>3</u>	ISI Category <u>C</u>	<input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position <u>C</u>	Safety Position <u>O</u>	
Relief Request <u>71</u>		

Valve Description:

This valve is the bottle air supply to accumulator tank 1IAS*TK5A check valve. It is normally closed with normal instrument air supplying the accumulator. It opens to allow the bottles to supply air to the accumulator, on loss of instrument air header pressure, to ensure air is available to operate the dampers.

Valve Safety Function:

This valve has a safety function in the open direction to allow bottle air to instrument air accumulator tank 1IAS*TK5A.

References:

USAR 9.3.1
Technical Specification 4.0.5
SDRD-P48, "Compressed Air Systems"
LOTM-44-4, "Plant Air Systems"

Required Testing

CV-O Forward flow test quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1IAS*V3097

System Name Instrument Air

System No 122

P&ID No 12-1B

Coord C-5

Valve Type Check

Valve Actuator Self Actuated Size 3/4 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position O

Relief Request 71

Valve Description:

This valve is the bottle air supply to accumulator tank 1IAS*TK5B check valve. It is normally closed with normal instrument air supplying the accumulator. It opens to allow the bottles to supply air to the accumulator, on loss of instrument air header pressure, to ensure air is available to operate the dampers.

Valve Safety Function:

This valve has a safety function in the open direction to allow bottle air to instrument air accumulator tank 1IAS*TK5B.

References:

USAR 9.3.1
Technical Specification 4.0.5
SDRD-P48, "Compressed Air Systems"
LOTM-44-4, "Plant Air Systems"

Required Testing

CV-O Forward flow test quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1IAS*V3098

System Name Instrument Air

System No 122

P&ID No 12-1B

Coord C-6

Valve Type Check

Valve Actuator Self Actuated Size 3/4 inch

ISI Class 3

ISI Category C ☒ Active ☐ Passive

Normal Position C

Safety Position O

Relief Request 71

Valve Description:

This valve is the bottle air supply to accumulator tank 1IAS*TK5B check valve. It is normally closed with normal instrument air supplying the accumulator. It opens to allow the bottles to supply air to the accumulator, on loss of instrument air header pressure, to ensure air is available to operate the dampers.

Valve Safety Function:

This valve has a safety function in the open direction to allow bottle air to instrument air accumulator tank 1IAS*TK5B.

References:

USAR 9.3.1
Technical Specification 4.0.5
SDRD-P48, "Compressed Air Systems"
LOTM-44-4, "Plant Air Systems"

Required Testing

CV-O Forward flow test quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V12

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>H-17</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u>	<input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>24</u>	<u>71</u>	

Valve Description:

This valve is one of a pair of Division I PVLCS supply line check valves to RWCU containment isolation valve 1WCS*MOV172. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the RWCU System is operating and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6

Technical Specification 4.0.5, 3/4.6.1.10

SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"

LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
DA	Reverse flow test by Disassembly and Inspection	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V18

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>F-18</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u>	<input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>71</u>		

Valve Description:

This valve is the Division I PVLCS supply line check valve to Condensate System containment isolation valve 1CNS*MOV125. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Condensate System is operating and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V20

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>D-8</u>
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u> Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>
Relief Request	<u>4</u>	<u>71</u>	

Valve Description:

This valve is the Division I PVLCS supply line check valve to Fire Protection System containment isolation valve 1FPW*MOV121. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Fire Protection System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V22

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>C-9</u>	Valve Actuator	<u>Self Actuated</u>	Size	<u>1 inch</u>
Valve Type	<u>Check</u>	ISI Category	<u>C</u>	[X] Active	[] Passive		
ISI Class	<u>2</u>	Safety Position	<u>QC</u>				
Normal Position	<u>C</u>						
Relief Request	<u>4</u>	<u>71</u>					

Valve Description:

This valve is the Division I PVLCS supply line check valve to Chilled Water System containment isolation valve 1HVN*MOV128. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Chilled Water System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V24

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>A-9</u>
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u> Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>
Relief Request	<u>4</u>		<u>71</u>

Valve Description:

This valve is the Division I PVLCS supply line check valve to Chilled Water System containment isolation valve 1HVN*MOV127. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Chilled Water System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4. "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V26

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>N-6</u>
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u> Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>
Relief Request	<u>4</u>	<u>71</u>	

Valve Description:

This valve is the Division I PVLCS supply line check valve to Service Air System containment isolation valve 1SAS*MOV102. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Service Air System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V28

System Name Pen. Valve Leakage Control System No 255

P&ID No <u>27-20B</u>	Coord <u>L-6</u>
Valve Type <u>Check</u>	Valve Actuator <u>Self Actuated</u> Size <u>1 inch</u>
ISI Class <u>2</u>	ISI Category <u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position <u>C</u>	Safety Position <u>OC</u>
Relief Request <u>4</u>	<u>71</u>

Valve Description:

This valve is the Division I PVLCS supply line check valve to Instrument Air System containment isolation valve 1IAS*MOV106. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Instrument Air System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV~V30

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>J-6</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u>	<input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>71</u>		

Valve Description:

This valve is the Division I PVLCS supply line check valve to Feedwater System containment isolation valve 1B21*MOVFO65A. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Feedwater System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V32

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>H-6</u>
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u> Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>QC</u>
Relief Request	<u>4</u>		<u>71</u>

Valve Description:

This valve is the Division I PVLCS supply line check valve to Feedwater System containment isolation valve 1B21*MOV065B. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Feedwater System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6

Technical Specification 4.0.5, 3/4.6.1.10

SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"

LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V35

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>H-17</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active	<input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>24</u>	<u>71</u>	

Valve Description:

This valve is one of a pair of Division I PVLCS supply line check valves to RWCU containment isolation valve 1WCS*MOV172. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the RWCU System is operating and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
DA	Reverse flow test by Disassembly and Inspection	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V36

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>J-14</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active	<input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>24</u>	<u>71</u>	

Valve Description:

This valve is one of a pair of Division I PVLCS supply line check valves to RWCU containment isolation valve 1G33*MOV034. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the RWCU System is operating and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
DA	Reverse flow test by Disassembly and Inspection	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V42

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>H-17</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u>	<input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>24</u>	<u>71</u>	

Valve Description:

This valve is one of a pair of Division II PVLCS supply line check valves to RWCU containment isolation valve 1WCS*MOV173. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the RWCU system is operating and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
DA	Reverse flow test by Disassembly and Inspection	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V46

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>H-17</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive	
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>24</u>	<u>71</u>	

Valve Description:

This valve is one of a pair of Division II PVLCS supply line check valves to RWCU containment isolation valve 1WCS*MOV173. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the RWCU system is operating and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
DA	Reverse flow test by Disassembly and Inspection	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V48

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>G-17</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u>	<input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>71</u>		

Valve Description:

This valve is the Division II PVLCS supply line check valve to Condensate System containment isolation valve 1CNS*MOV130. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Condensate System is operating and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V50

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>E-8</u>
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u> Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>QC</u>
Relief Request	<u>4</u>	<u>71</u>	

Valve Description:

This valve is the Division II PVLCS supply line check valve to Fire Protection System containment isolation valve 1FPW*MOV122. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Fire Protection System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V52

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>C-9</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active	<input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>71</u>		

Valve Description:

This valve is the Division II PVLCS supply line check valve to Chilled Water System containment isolation valve 1HVN*MOV130. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Chilled Water System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6

Technical Specification 4.0.5, 3/4.6.1.10

SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"

LOTM-52-4. "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V54

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>A-9</u>
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u> Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>
Relief Request	<u>4</u>	<u>71</u>	

Valve Description:

This valve is the Division II PVLCS supply line check valve to Chilled Water System containment isolation valve 1HVN*MOV129. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Chilled Water System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6

Technical Specification 4.0.5, 3/4.6.1.10

SDRD-P28, "Penetration Valve Leakage Control System: (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"

LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V56

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>N-6</u>
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u> Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>
Relief Request	<u>4</u>	<u>71</u>	

Valve Description:

This valve is the Division II PVLCS supply line check valve to Service Air System containment isolation valve 1SAS*MOV103. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Service Air System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV~V58

System Name Pen. Valve Leakage Control System No 255

P&ID No <u>27-20B</u>	Coord <u>M-6</u>
Valve Type <u>Check</u>	Valve Actuator <u>Self Actuated</u> Size <u>1 inch</u>
ISI Class <u>2</u>	ISI Category <u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position <u>C</u>	Safety Position <u>OC</u>
Relief Request <u>4</u>	<u>71</u>

Valve Description:

This valve is the Division II PVLCS supply line check valve to Instrument Air System containment isolation valve 1IAS*MOV107. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Instrument Air System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V60

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>K-6</u>
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u> Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>
Relief Request	<u>4</u>	<u>71</u>	

Valve Description:

This valve is the Division II PVLCS supply line check valve to Feedwater System containment isolation valve 1FWS*MOV7A. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Feedwater System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6

Technical Specification 4.0.5, 3/4.6.1.10

SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"

LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V62

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>J-6</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> <input checked="" type="checkbox"/> Active	<input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>71</u>		

Valve Description:

This valve is the Division II PVLCS supply line check valve to Feedwater System containment isolation valve 1FWS*MOV7B. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the Feedwater System is in service and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
CV-C	Reverse flow test	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V72

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>K-14</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u>	<input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>	
Relief Request	<u>4</u>	<u>24</u>		<u>71</u>

Valve Description:

This valve is one of a pair of Division II PVLCS supply line check valves to RWCU containment isolation valve 1WCS*MOV111. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the RWCU system is operating and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
DA	Reverse flow test by Disassembly and Inspection	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V76

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>K-14</u>		
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size	<u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u>	<input checked="" type="checkbox"/> Active	<input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>		
Relief Request	<u>4</u>	<u>24</u>		<u>71</u>	

Valve Description:

This valve is one of a pair of Division II PVLCS supply line check valves to RWCU containment isolation valve 1WCS*MOV111. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the RWCU system is operating and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
DA	Reverse flow test by Disassembly and Inspection	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V82

System Name Pen. Valve Leakage Control System No 255

P&ID No <u>27-20B</u>	Coord <u>N-12</u>	
Valve Type <u>Check</u>	Valve Actuator <u>Self Actuated</u>	Size <u>2 inch</u>
ISI Class <u>2</u>	ISI Category <u>C</u>	<input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position <u>C</u>	Safety Position <u>O</u>	
Relief Request <u>71</u>		

Valve Description:

This valve is PVLCS Division II accumulator 1LSV*TK6B discharge check valve. It opens to allow air from the accumulator into the injection headers.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the PVLCS injection headers.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O Forward flow test quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V90

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>K-14</u>
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u> Size <u>1 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u> [X] Active [] Passive
Normal Position	<u>C</u>	Safety Position	<u>OC</u>
Relief Request	<u>4</u>	<u>24</u>	<u>71</u>

Valve Description:

This valve is one of a pair of Division I PVLCS supply line check valves to RWCU containment isolation valve 1G33*MOV034. It opens when PVLCS is initiated to allow air pressure into the process valves' body to pressurize between the seats and form a pressure barrier to prevent release of fission products. It closes to prevent process fluid from entering the PVLCS piping when the RWCU System is operating and the PVLCS is in standby with its injection valves closed.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the process valve being sealed by PVLCS. It has a safety function in the closed direction to prevent process fluid from entering the PVLCS piping when it is in standby.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O	Forward flow test	refueling
DA	Reverse flow test by Disassembly and Inspection	refueling

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V98

System Name Pen. Valve Leakage Control System No 255

P&ID No	<u>27-20B</u>	Coord	<u>D-12</u>	
Valve Type	<u>Check</u>	Valve Actuator	<u>Self Actuated</u>	Size <u>2 inch</u>
ISI Class	<u>2</u>	ISI Category	<u>C</u>	<input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position	<u>C</u>	Safety Position	<u>O</u>	
Relief Request	<u>71</u>			

Valve Description:

This valve is PVLCS Division I accumulator 1LSV*TK6A discharge check valve. It opens to allow air from the accumulator into the injection headers.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the PVLCS injection headers.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4 6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O Forward flow test quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V3032A

System Name Pen. Valve Leakage Control System No 255

P&ID No <u>27-20B</u>	Coord <u>B-19</u>
Valve Type <u>Check</u>	Valve Actuator <u>Self Actuated</u> Size <u>2 inch</u>
ISI Class <u>2</u>	ISI Category <u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position <u>OC</u>	Safety Position <u>O</u>
Relief Request <u>71</u>	

Valve Description:

This valve is the PVLCS Division I compressor 1LSV*C3A inlet check valve. It opens to allow air into the compressor. This valve is normally closed when the compressor is not running. The compressor automatically starts and stops as necessary to maintain the accumulator charged.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the PVLCS compressor.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O Forward flow test quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1LSV*V3032B

System Name Pen. Valve Leakage Control System No 255

P&ID No <u>27-20B</u>	Coord <u>L-19</u>
Valve Type <u>Check</u>	Valve Actuator <u>Self Actuated</u> Size <u>2 inch</u>
ISI Class <u>2</u>	ISI Category <u>C</u> <input checked="" type="checkbox"/> Active <input type="checkbox"/> Passive
Normal Position <u>OC</u>	Safety Position <u>O</u>
Relief Request <u>71</u>	

Valve Description:

This valve is the PVLCS Division II compressor 1LSV*C3B inlet check valve. It opens to allow air into the compressor. This valve is normally closed when the compressor is not running. The compressor automatically starts and stops as necessary to maintain the accumulator charged.

Valve Safety Function:

This valve has a safety function in the open direction to allow air into the PVLCS compressor.

References:

USAR 9.3.6
Technical Specification 4.0.5, 3/4.6.1.10
SDRD-P28, "Penetration Valve Leakage Control System (PVLCS) and Main Steam Positive Leakage Control System (MS-LCS)"
LOTM-52-4, "Penetration Valve Leakage Control"

Required Testing

CV-O Forward flow test quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1EGA*V147

System Name: Diesel Starting Air

System No: 309

PID No: 8-9B

Coord: M-8

Valve Type: Check

Valve Actuator: Self Actuated

Size: 6 inch

ISI Class: 3

ISI Category: C

☒ Active ☐ Passive

Normal Position: C

Safety Position: OC

Relief Request: 71

Valve Description:

The Emergency Diesel Generator Starting Air Supply Check Valve is a normally closed valve with an active safety function to open to admit starting air to the EDG. Valve opening is demonstrated by verifying that the EDG starts and achieves rated speed and voltage within the required response time. The valve is credited with a close safety function to maintain sub-system train separation in the EDG Air Start System.

Valve Safety Function:

OPEN - Admit starting air to EDG

CLOSE - Maintain sub-system train separation in the Air Start System

References:

USAR 9.5.6, "Diesel Generator Starting System," August 1992
SDRD-P1, "Air Startup Emergency Diesel Generator," Rev. 0

Required Testing

CV-O: Full flow open quarterly by passing sufficient air to start diesel generator within response time requirements
CV-C: Full stroke closed, verified by radiography quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1EGA*V148

System Name: Diesel Starting Air

System No: 309

PID No: 8-9B

Coord: L-8

Valve Type: Check

Valve Actuator: Self Actuated

Size: 6 inch

ISI Class: 3

ISI Category: C

☒ Active ☐ Passive

Normal Position: C

Safety Position: OC

Relief Request: 71

Valve Description:

The Emergency Diesel Generator Starting Air Supply Check Valve is a normally closed valve with an active safety function to open to admit starting air to the EDG. Valve opening is demonstrated by verifying that the EDG starts and achieves rated speed and voltage within the required response time. The valve is credited with a close safety function to maintain sub-system train separation in the EDG Air Start System.

Valve Safety Function:

OPEN - Admit starting air to EDG

CLOSE - Maintain sub-system train separation in the Air Start System

References:

USAR 9.5.6, "Diesel Generator Starting System," August 1992
SDRD-P1, "Air Startup Emergency Diesel Generator," Rev. 0

Required Testing

CV-O: Full flow open quarterly by passing sufficient air to start diesel generator within response time requirements
CV-C: Full stroke closed, verified by radiography quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1EGA*V151

System Name: Diesel Starting Air

System No: 309

PID No: 8-9B

Coord: E-8

Valve Type: Check

Valve Actuator: Self Actuated

Size: 6 inch

ISI Class: 3

ISI Category: C

☒ Active ☐ Passive

Normal Position: C

Safety Position: OC

Relief Request: 71

Valve Description:

The Emergency Diesel Generator Starting Air Supply Check Valve is a normally closed valve with an active safety function to open to admit starting air to the EDG. Valve opening is demonstrated by verifying that the EDG starts and achieves rated speed and voltage within the required response time. The valve is credited with a close safety function to maintain sub-system train separation in the EDG Air Start System.

Valve Safety Function:

OPEN - Admit starting air to EDG

CLOSE - Maintain sub-system train separation in the Air Start System

References:

USAR 9.5.6, "Diesel Generator Starting System," August 1992
SDRD-P1, "Air Startup Emergency Diesel Generator," Rev. 0

Required Testing

CV-O: Full flow open quarterly by passing sufficient air to start diesel generator within response time requirements
CV-C: Full stroke closed, verified by radiography quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1EGA*V152

System Name: Diesel Starting Air

System No: 309

PID No: 8-9B

Coord: D-8

Valve Type: Check

Valve Actuator: Self Actuated

Size: 6 inch

ISI Class: 3

ISI Category: C

☒ Active ☐ Passive

Normal Position: C

Safety Position: OC

Relief Request: 71

Valve Description:

The Emergency Diesel Generator Starting Air Supply Check Valve is a normally closed valve with an active safety function to open to admit starting air to the EDG. Valve opening is demonstrated by verifying that the EDG starts and achieves rated speed and voltage within the required response time. The valve is credited with a close safety function to maintain sub-system train separation in the EDG Air Start System.

Valve Safety Function:

OPEN - Admit starting air to EDG

CLOSE - Maintain sub-system train separation in the Air Start System

References:

USAR 9.5.6, "Diesel Generator Starting System," August 1992
SDRD-P1, "Air Startup Emergency Diesel Generator," Rev. 0

Required Testing

CV-O: Full flow open quarterly by passing sufficient air to start diesel generator within response time requirements
CV-C: Full stroke closed, verified by radiography quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1EGA*V163

System Name: Diesel Starting Air

System No: 309

PID No: 8-9B

Coord: L-4

Valve Type: Check

Valve Actuator: Self Actuated

Size: 3 inch

ISI Class: NC

ISI Category: C

☒ Active ☐ Passive

Normal Position: C

Safety Position: OC

Relief Request: 71

Valve Description:

The Emergency Diesel Generator Starting Air Supply Check Valve is a normally closed non-ASME code valve with an active safety function to open to admit starting air to the EDG. Valve opening is demonstrated by verifying that the EDG starts and achieves rated speed and voltage within the required response time. The valve is credited with a close safety function to maintain sub-system train separation in the EDG Air Start System.

Valve Safety Function:

OPEN - Admit starting air to EDG

CLOSE - Maintain sub-system train separation in the Air Start System

References:

USAR 9.5.6, "Diesel Generator Starting System," August 1992
SDRD-P1, "Air Startup Emergency Diesel Generator," Rev. 0

Required Testing

CV-O: Full flow open quarterly by passing sufficient air to start diesel generator within response time requirements
CV-C: Full stroke closed, verified by radiography quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1EGA*V164

System Name: Diesel Starting Air

System No: 309

PID No: 8-9B

Coord: M-4

Valve Type: Check

Valve Actuator: Self Actuated

Size: 3 inch

ISI Class: NC

ISI Category: C

☒ Active ☐ Passive

Normal Position: C

Safety Position: OC

Relief Request: 71

Valve Description:

The Emergency Diesel Generator Starting Air Supply Check Valve is a normally closed non-ASME code valve with an active safety function to open to admit starting air to the EDG. Valve opening is demonstrated by verifying that the EDG starts and achieves rated speed and voltage within the required response time. The valve is credited with a close safety function to maintain sub-system train separation in the EDG Air Start System.

Valve Safety Function:

OPEN - Admit starting air to EDG

CLOSE - Maintain sub-system train separation in the Air Start System

References:

USAR 9.5.6, "Diesel Generator Starting System," August 1992

SDRD-P1, "Air Startup Emergency Diesel Generator," Rev. 0

Required Testing

CV-O: Full flow open quarterly by passing sufficient air to start diesel generator within response time requirements

CV-C: Full stroke closed, verified by radiography quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1EGA*V165

System Name: Diesel Starting Air

System No: 309

PID No: 8-9B

Coord: E-4

Valve Type: Check

Valve Actuator: Self Actuated

Size: 3 inch

ISI Class: NC

ISI Category: C

☒ Active ☐ Passive

Normal Position: C

Safety Position: OC

Relief Request: 71

Valve Description:

The Emergency Diesel Generator Starting Air Supply Check Valve is a normally closed non-ASME code valve with an active safety function to open to admit starting air to the EDG. Valve opening is demonstrated by verifying that the EDG starts and achieves rated speed and voltage within the required response time. The valve is credited with a close safety function to maintain sub-system train separation in the EDG Air Start System.

Valve Safety Function:

OPEN - Admit starting air to EDG

CLOSE - Maintain sub-system train separation in the Air Start System

References:

USAR 9.5.6, "Diesel Generator Starting System," August 1992
SDRD-P1, "Air Startup Emergency Diesel Generator," Rev. 0

Required Testing

CV-O: Full flow open quarterly by passing sufficient air to start diesel generator within response time requirements
CV-C: Full stroke closed, verified by radiography quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1EGA*V166

System Name: Diesel Starting Air

System No: 309

PID No: 8-9B

Coord: D-4

Valve Type: Check

Valve Actuator: Self Actuated

Size: 3 inch

ISI Class: NC

ISI Category: C

☒ Active ☐ Passive

Normal Position: C

Safety Position: OC

Relief Request: 71

Valve Description:

The Emergency Diesel Generator Starting Air Supply Check Valve is a normally closed non-ASME code valve with an active safety function to open to admit starting air to the EDG. Valve opening is demonstrated by verifying that the EDG starts and achieves rated speed and voltage within the required response time. The valve is credited with a close safety function to maintain sub-system train separation in the EDG Air Start System.

Valve Safety Function:

OPEN - Admit starting air to EDG

CLOSE - Maintain sub-system train separation in the Air Start System

References:

USAR 9.5.6, "Diesel Generator Starting System," August 1992
SDRD-P1, "Air Startup Emergency Diesel Generator," Rev. 0

Required Testing

CV-O: Full flow open quarterly by passing sufficient air to start diesel generator within response time requirements

CV-C: Full stroke closed, verified by radiography quarterly

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1CMS*V40

System Name CA&LM

System No 552

P&ID No 33-2B

Coord F-7

Valve Type Check

Valve Actuator Self Actuated Size 0.75 inch

ISI Class 2

ISI Category C ☒ Active ☐ Passive

Normal Position OC

Safety Position OC

Relief Request 02

71

Valve Description:

This .75 inch check valve has an active safety function in the open direction to allow flow from the hydrogen analyzer back into the drywell after the sample has been analyzed. The valve also has a safety function in the closed direction to prevent flow from the drywell into containment.

Safety Function Valve:

This valve has a safety function in the open direction to allow flow from the hydrogen analyzer back into the drywell and in the closed direction to prevent flow from the drywell into containment.

References:

USAR 6.2.
Technical Specification 4.0.5 and 3/4.6.
SDRD-P11

Current Testing

CV-O: Forward flow test quarterly.
CV-C: Reverse flow test by the drywell bypass leak test.

INSERVICE TESTING BASIS DOCUMENT
FOR
VALVE - 1CMS*V41

System Name CA&LM

System No 552

P&ID No 33-2A

Coord F-15

Valve Type Check

Valve Actuator Self Actuated Size 0.75 inch

ISI Class 2

ISI Category C ☒ Active ☐ Passive

Normal Position OC

Safety Position OC

Relief Request 02

71

Valve Description:

This .75 inch check valve has an active safety function in the open direction to allow flow from the hydrogen analyzer back into the drywell after the sample has been analyzed. The valve also has a safety function in the closed direction to prevent flow from the drywell into containment.

Safety Function Valve :

This valve has a safety function in the open direction to allow flow from the hydrogen analyzer back into the drywell and in the closed direction to prevent flow from the drywell into containment.

References:

USAR 6.2.
Technical Specification 4.0.5 and 3/4.6.
SDRD-P11

Current Testing

CV-O: Forward flow test quarterly.
CV-C: Reverse flow test by the drywell bypass leak test.