



Low-Level Waste Plasma Gasification (NW PlasGas) Demonstration Project – Valve List

Doc. No. ENS-NWPR-LST-24002

Rev. No. 5

1		2			3		4		5		6		7		8				9		10		11		12		13		14		15					
Valve Tag No.		Valve Code	Valve Code	Valve Size	Valve Type	P&ID Number	Location (Line No. / Equipment No.)	Fluid	Fluid State	Shared (Y/N)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)
AI	17	179	CB	40	Ball valve	ENS-NWPR-PID-24014	Line 45-17, APCG-076	Air	Gas	Y	38	1965	Y	15	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316 SS BALL and STEM	FLEXIBLE GRAPHITE	RTFE	FLOATING BALL	CS (ASTM A105/A216 WCB)	Note 5	1												
AI	17	180	CB	40	Ball valve	ENS-NWPR-PID-24014	Line 45-17, APCG-076	Air	Gas	Y	38	1965	Y	15	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316 SS BALL and STEM	FLEXIBLE GRAPHITE	RTFE	FLOATING BALL	CS (ASTM A105/A216 WCB)	Note 5	1												
AI	17	183	CG	40	Globe valve	ENS-NWPR-PID-24014	Line 45-17, APCG-076	Instrument air	Gas	Y	38	1965	Y	40	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316 SS BALL and STEM	FLEXIBLE GRAPHITE	RTFE	FLOATING BALL	CS (ASTM A105/A216 WCB)	Note 5	1												
AI	17	190	CB	15	Ball valve	ENS-NWPR-PID-24014	Line 15-17, AICX-095	Instrument air	Gas	N	38	1965	N	15	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316 SS BALL and STEM	FLEXIBLE GRAPHITE	RTFE	FLOATING BALL	CS (ASTM A105/A216 WCB)	-	1												
AI	17	195	CB	15	Ball valve	ENS-NWPR-PID-24014	Line 15-17, AICX-091	Instrument air	Gas	N	38	1965	N	15	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316 SS BALL and STEM	FLEXIBLE GRAPHITE	RTFE	BALL	CS (ASTM A105/A216 WCB)	-	1												
AI	17	177	CB	25	Ball valve	ENS-NWPR-PID-24014	Line 25-17, AICX-078	Instrument air	Gas	N	38	1965	N	25	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316 SS BALL and STEM	FLEXIBLE GRAPHITE	RTFE	FLOATING BALL	CS (ASTM A105/A216 WCB)	-	1												
AI	17	154	CB	15	Ball valve	ENS-NWPR-PID-24014	Line 15-17, AICX-090	Instrument air	Gas	N	38	1965	N	15	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316 SS BALL and STEM	FLEXIBLE GRAPHITE	RTFE	BALL	CS (ASTM A105/A216 WCB)	-	1												

1		2			3		4		5		6		7		8		9		10		11		12		13		14		15							
Valve Tag No.		Valve Code	Valve Code	Valve Size	Valve Type	P&ID Number	Location (Line No. / Equipment No.)	Fluid	Fluid State	Shared (Y/N)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)	Temp. (°C)	Press. (kPa/g)
AI	17	175	CB	15	Ball valve	ENS-NWPR-PID-24014	Line 15-17, AICX-088	Instrument air	Gas	N	38	1965	Ambient	520	Non-classified	Non-classified	XV1712	FC	Pneumatic	15	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316 SS	FLEXIBLE GRAPHITE	FLOATING BALL, 316 SS BALL	CS (ASTM A105/A216 WCB)	-	1							
AI	17	178	CB	15	Ball valve	ENS-NWPR-PID-24014	Line 15-17, AICX-089	Instrument air	Gas	N	38	1965	Ambient	520	Non-classified	Non-classified	XV1713	FC	Pneumatic	15	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316 SS	FLEXIBLE GRAPHITE	FLOATING BALL, 316 SS BALL	CS (ASTM A105/A216 WCB)	-	1							
AI	17	191	CB	15	Ball valve	ENS-NWPR-PID-24014	Line 15-17, AICX-087	Instrument air	Gas	N	38	1965	Ambient	520	Non-classified	Non-classified	XV1711	FC	Pneumatic	15	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316 SS	FLEXIBLE GRAPHITE	FLOATING BALL, 316 SS BALL	CS (ASTM A105/A216 WCB)	-	1							
AP	17	196	CB	40	Ball valve	ENS-NWPR-PID-24014	Line 45-17, APCG-074	Plant air	Gas	Y	38	1965	Ambient	550	Non-classified	Non-classified	XV1716	FC	Solenoid	40	RF	CS, ASTM A105/A216 WCB, B16.5	CS (ASTM A105/A216 WCB)	316SS	FLEXIBLE GRAPHITE	FLOATING BALL, 316 SS BALL	CS (ASTM A105/A216 WCB)	-	1							

Notes

- The scrubbing solution composition will change over time due to the chemical reactions taking place in the scrubber. At the end of phase 1, the composition (w/w) will be 67.67% water, 1.05% KCl, and 30.78% K₂CO₃. At the end of phase 2, the scrubber off-gas, changes over time due to chemical reactions taking place in the scrubber. The gas composition (v/v) are as follows: 1.3% CO₂, 0.1% HCl, 5.15% O₂, and 48.7% N₂ at the start of the process, and 74% CO₂, 0.02% HCl.
- Process ventilation pipeline and valve sizes to be determined during design of HVAC system.
- Y = Valve is shared between the NW PlasGas and CWOPOG Facilities, and utilized in both facilities. N = Valve is only utilized in the NW PlasGas Facility.
- This valve is shared between the NW PlasGas and CWOPOG Facilities, not as a result of integration of the two facilities, but rather as a result of one centralized instrument air supply system servicing all plasma gasification facilities in V-H2 Building. That system is incorporated into the NW PlasGas Facility.