

# List of Control Valves


for

## CO<sub>2</sub> Capture Facility

Kårstø, Norway

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0	5 Dec 08	ISSUED FOR INFORMATION	JF	JL	JBF	DL	MS
Rev.	Date	Reason for Revision	By	Check	App	App	
 Bechtel Power Corporation			Job No. 25474		Document No.		Rev.
					25474 - 000 - J0 - 0000 - 00003		0
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<b>GASSNOVA</b>			Project No. - Originator - Disc Code - Doc Type - Serial No. 10112936 - PB - I - PAL - 0004				

TAGNO	DESCRIPTION	INSTRUMENT TYPE	P&ID
1-BA-PV-0002	HRSG OUTLET DAMPER	BUTTERFLY VALVE	M6-BA-00001
1-BA-PV-0035	BLOWER 101 INLET BOX DAMPER	BUTTERFLY VALVE	M6-BA-00001
1-BA-PV-0061	BLOWER 102 INLET BOX DAMPER	BUTTERFLY VALVE	M6-BA-00001
1-BA-TV-0094	PROCESS WATER TO SPRAY WATER (ABS 1) TEMPERATURE VALVE	GLOBE VALVE	M6-BA-00002
1-BA-TV-0096	PROCESS WATER TO SPRAY WATER (ABS 2) TEMPERATURE VALVE	GLOBE VALVE	M6-BA-00002
1-BA-TV-0098	PROCESS WATER TO SPRAY WATER (COMMON DUCT) TEMPERATURE VALVE	GLOBE VALVE	M6-BA-00002
1-CN-LV-0160	ABSORBER 1 WASH WATER PUMP DISCHARGE LEVEL VALVE	GLOBE VALVE	M6-CN-00030
1-CN-FV-0170A	WASH WATER TO ABSORBER 1 FLOW VALVE	GLOBE VALVE	M6-CN-00030
1-CN-FV-0170B	WASH WATER TO ABSORBER 1 FLOW VALVE	GLOBE VALVE	M6-CN-00030
1-CN-LV-0260	ABSORBER 2 WASH WATER PUMP DISCHARGE LEVEL VALVE	GLOBE VALVE	M6-CN-00070
1-CN-FV-0270A	WASH WATER TO ABSORBER 2 FLOW VALVE A	GLOBE VALVE	M6-CN-00070
1-CN-FV-0270B	WASH WATER TO ABSORBER 2 FLOW VALVE B	GLOBE VALVE	M6-CN-00070
1-CN-FV-0312A	RICH AMINE ABSORBER 1 DISCHARGE FLOW VALVE A	GATE VALVE	M6-CN-00040
1-CN-FV-0312B	RICH AMINE ABSORBER 1 DISCHARGE FLOW VALVE B	GATE VALVE	M6-CN-00040
1-CN-FV-0312C	RICH AMINE ABSORBER 1 DISCHARGE FLOW VALVE C	GATE VALVE	M6-CN-00045
1-CN-FV-0312D	RICH AMINE ABSORBER 1 DISCHARGE FLOW VALVE D	GATE VALVE	M6-CN-00045
1-CN-LV-0352	RICH AMINE TO STRIPPER INLET LEVEL VALVE	GLOBE VALVE	M6-CN-00120
1-CN-FV-0416	SEMI-LEAN FLASH DRUM INLET FLOW VALVE	GLOBE VALVE	M6-CN-00110
1-CN-FV-0418A	SEMI-LEAN FLASH DRUM PUMP DISCHARGE FLOW VALVE A	GLOBE VALVE	M6-CN-00110
1-CN-FV-0418B	SEMI-LEAN FLASH DRUM PUMP DISCHARGE FLOW VALVE B	GLOBE VALVE	M6-CN-00110
1-CN-LV-0440A	ABSORBER 1 SEMI-LEAN AMINE LEVEL VALVE B	GLOBE VALVE	M6-CN-00010
1-CN-LV-0440B	ABSORBER 2 SEMI-LEAN AMINE LEVEL VALVE	GLOBE VALVE	M6-CN-00050
1-CN-FV-0508A	LEAN AMINE PUMP A MIN FLOW VALVE	GLOBE VALVE	M6-CN-00170
1-CN-FV-0508B	LEAN AMINE PUMP B MIN FLOW VALVE	GLOBE VALVE	M6-CN-00170
1-CN-LV-0516	LEAN AMINE TO LEAN AMINE SOLVENT STORAGE LEVEL VALVE	GLOBE VALVE	M6-CN-00080
1-CN-FV-0518	LEAN AMINE TO ABSORBER FLOW VALVE	BUTTERFLY VALVE	M6-CN-00080
1-CN-FV-0530A	ABSORBER 1 LEAN AMINE FLOW VALVE	GLOBE VALVE	M6-CN-00010
1-CN-FV-0530B	ABSORBER 2 LEAN AMINE FLOW VALVE	GLOBE VALVE	M6-CN-00050
1-CN-FV-0678A	REFLUX PUMP DISCHARGE TO STRIPPER REFLUX DRUM FLOW VALVE A	GLOBE VALVE	M6-CN-00140
1-CN-FV-0678B	REFLUX PUMP DISCHARGE TO STRIPPER REFLUX DRUM FLOW VALVE B	GLOBE VALVE	M6-CN-00140
1-CN-FV-0682	STRIPPER REFLUX DRUM TO STRIPPER FLOW VALVE	GLOBE VALVE	M6-CN-00140
1-CN-LV-0686	STRIPPER REFLUX TO SURGE TANK LEVEL VALVE	GLOBE VALVE	M6-CN-00140
1-CN-PV-0690A	STRIPPER REFLUX DRUM PRESSURE CONTROL VALVE	BUTTERFLY VALVE	M6-CN-00140
1-CN-PV-0690B	STRIPPER REFLUX DRUM VENT PRESSURE VALVE	BUTTERFLY VALVE	M6-CN-00140
1-QG-PV-0701	CO2 VENT DRUM TO ABSORBER 1 PRESSURE VALVE	GLOBE VALVE	M6-QG-00010
1-QG-PV-0703	CO2 VENT DRUM TO ABSORBER 2 PRESSURE VALVE	GLOBE VALVE	M6-QG-00010
1-QG-LV-0712	COMPRESSOR SUCTION DRUM TO DRAIN LEVEL VALVE	GLOBE VALVE	M6-QG-00010
1-QG-FV-0732	COMPRESSOR 1ST STAGE ANTI-SURGE FLOW VALVE	GLOBE VALVE	M6-QG-00020
1-QG-LV-0746	CO2 COMP 1ST STAGE INT KO DRUM LEVEL VALVE	GLOBE VALVE	M6-QG-00040
1-QG-FV-0762	COMPRESSOR 2ND STAGE ANTI-SURGE FLOW VALVE	GLOBE VALVE	M6-QG-00050
1-QG-LV-0776	CO2 COMP 1ST STAGE INT KO DRUM LEVEL VALVE	GLOBE VALVE	M6-QG-00070
1-AB-TV-0814	LP CONDENSATE TO LP STEAM TEMPERATURE VALVE	GLOBE VALVE	M6-AB-00001
1-AB-LV-0818	LP CONDENSATE TO LP STEAM DRAIN LEVEL VALVE	GLOBE VALVE	M6-AB-00001

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Kårstø FEED Study

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TAG NO	DESCRIPTION	INSTRUMENT TYPE	P&ID
1-AB-FV-0830A	LP STEAM TO REBOILER FLOW VALVE A	GLOBE VALVE	M6-AB-00001
1-AB-FV-0830C	LP STEAM TO REBOILER FLOW VALVE C	GLOBE VALVE	M6-AB-00001
1-AB-FV-0830E	LP STEAM TO REBOILER FLOW VALVE E	GLOBE VALVE	M6-AB-00002
1-AB-FV-0830G	LP STEAM TO REBOILER FLOW VALVE G	GLOBE VALVE	M6-AB-00002
1-AB-FV-0912	HP STEAM TO RECLAIMER FLOW VALVE	GLOBE VALVE	M6-AB-00003
1-SC-LV-1000A	LP CONDENSATE FROM REBOILER TO BLOWDOWN TANK LEVEL VALVE A	GLOBE VALVE	M6-SC-00001
1-SC-LV-1000C	LP CONDENSATE FROM REBOILER TO BLOWDOWN TANK LEVEL VALVE C	GLOBE VALVE	M6-SC-00001
1-SC-LV-1000E	LP CONDENSATE FROM REBOILER TO BLOWDOWN TANK LEVEL VALVE E	GLOBE VALVE	M6-SC-00001
1-SC-LV-1000G	LP CONDENSATE FROM REBOILER TO BLOWDOWN TANK LEVEL VALVE G	GLOBE VALVE	M6-SC-00001
1-SC-LV-1004	SOFTENED WATER TO LP CONDENSATE BLOWDOWN TANK LEVEL VALVE	GLOBE VALVE	M6-SC-00001
1-SC-FV-1012A	LP CONDENSATE RETURN PUMP DISCHARGE FLOW VALVE A	GLOBE VALVE	M6-SC-00001
1-SC-FV-1012B	LP CONDENSATE RETURN PUMP DISCHARGE FLOW VALVE B	GLOBE VALVE	M6-SC-00001
1-SC-PCV-1022A	LP CONDENSATE RETURN PUMP SUCTION PRESSURE REGULATOR A	PRESSURE REGULATOR	M6-SC-00001
1-SC-PCV-1022B	LP CONDENSATE RETURN PUMP SUCTION PRESSURE REGULATOR B	PRESSURE REGULATOR	M6-SC-00001
1-SC-LV-1030A	LP CONDENSATE RETURN TO CCC PLANT LEVEL VALVE A	GLOBE VALVE	M6-SC-00001
1-SC-LV-1030B	LP CONDENSATE RETURN TO CCC PLANT LEVEL VALVE B	GLOBE VALVE	M6-SC-00001
1-CN-LV-1112	LEAN AMINE TO RECLAIMER LEVEL VALVE	GLOBE VALVE	M6-CN-00180
1-WP-FV-1310A	ABSORBER 1 WASH WATER FLOW VALVE	GLOBE VALVE	M6-WP-00010
1-WP-FV-1310B	ABSORBER 2 WASH WATER FLOW VALVE	GLOBE VALVE	M6-WP-00010
1-WP-FV-1350A	PROCESS WATER TO ABSORBER 1 FLOW VALVE	GLOBE VALVE	M6-WP-00010
1-WP-FV-1350B	PROCESS WATER TO ABSORBER 2 FLOW VALVE	GLOBE VALVE	M6-WP-00010
1-WP-TV-1360	SURGE TANK WATER TO RECLAIMER TEMPERATURE VALVE	GLOBE VALVE	M6-WP-00010
1-CY-FV-1436A	LEAN AMINE SOLVENT FILL PUMP DISCHARGE FLOW VALVE A	GLOBE VALVE	M6-CY-00010
1-CY-FV-1436B	LEAN AMINE SOLVENT FILL PUMP DISCHARGE FLOW VALVE B	GLOBE VALVE	M6-CY-00010
1-CY-LV-1440	LEAN AMINE SOLVENT FILL PUMP DISCHARGE LEVEL VALVE	GLOBE VALVE	M6-CY-00010
1-WL-TV-1562	FROM LEAN AMINE COOLER TO SEA WATER DISCHARGE PIT TEMP. VALVE	BUTTERFLY VALVE	M6-WL-00003
1-WL-TV-1574	FROM ABSORBER 1 TO WASH WATER COOLER TEMPERATURE VALVE	BUTTERFLY VALVE	M6-WL-00003
1-WL-TV-1580	FROM LEAN AMINE COOLER TEMPERATURE VALVE	BUTTERFLY VALVE	M6-WL-00003
1-WL-TV-1592	FROM STRIPPER CONDENSER TEMP. CONTROL TEMPERATURE VALVE	BUTTERFLY VALVE	M6-WL-00003
1-WL-PV-1597	VALVE PIT PRESSURE VALVE	BUTTERFLY VALVE	M6-WL-00003
1-WL-TV-1616	FROM CO2 COOLER TEMPERATURE VALVE	BUTTERFLY VALVE	M6-WL-00003
1-WL-TV-1626	FROM CO2 COMP 2ND STAGE INTERCOOLER TEMPERATURE VALVE	BUTTERFLY VALVE	M6-WL-00003
1-WL-TV-1636	FROM CO2 COMP 1ST STAGE INTERCOOLER TEMPERATURE VALVE	BUTTERFLY VALVE	M6-WL-00003
1-PA-PCV-1808	SERVICE AIR TO CO2 COMP BLDG PRESSURE REGULATOR	BACKPRESSURE REGULATOR	M6-PA-00002
1-PA-PCV-1810	SERVICE AIR TO CONTROL/WORKSHOP/STORES PRESSURE REGULATOR	BACKPRESSURE REGULATOR	M6-PA-00002
1-PA-PCV-1812	SERVICE AIR TO ABSORBER 1 AREA PRESSURE REGULATOR	BACKPRESSURE REGULATOR	M6-PA-00002
1-PA-PCV-1814	SERVICE AIR TO ABSORBER 2 AREA PRESSURE REGULATOR	BACKPRESSURE REGULATOR	M6-PA-00002
1-PA-PCV-1816	SERVICE AIR TO STRIPPER AREA PRESSURE REGULATOR	BACKPRESSURE REGULATOR	M6-PA-00002
1-PA-PCV-1818	SERVICE AIR TO TANK BUNN AREA PRESSURE REGULATOR	BACKPRESSURE REGULATOR	M6-PA-00002
1-PA-PCV-1820	SERVICE AIR TO CO2 TRANSPORT AREA BACKPRESSURE REGULATOR	BACKPRESSURE REGULATOR	M6-PA-00002
1-SB-FV-2303	FUEL GAS TO AUX. BOILER BURNER PRESSURE VALVE	GLOBE VALVE	M6-SB-00001
1-SB-FV-2316	STEAM DRUM TO AUX. BOILER STEAM VENT FLOW VALVE	GLOBE VALVE	M6-SB-00001
1-SB-LV-2320	LP CONDENSATE TO DEAERATOR LEVEL VALVE	GLOBE VALVE	M6-SB-00001

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1-SB-LV-2322	DEAERATOR LEVEL VALVE	GLOBE VALVE	M6-SB-00001
1-SB-PCV-2324	STEAM DRUM TO DEAERATOR PRESSURE REGULATOR	PRESSURE REGULATOR	M6-SB-00001
1-SB-LV-2344	STEAM DRUM INLET LEVEL VALVE	GLOBE VALVE	M6-SB-00001
1-SB-LV-2346	MUD DRUM OUTLET LEVEL VALVE	GATE VALVE	M6-SB-00001
1-SB-TV-2350	AUX. BOILER BLOWDOWN TANK TO DRAIN TEMPERATURE VALVE	GLOBE VALVE	M6-SB-00001
1-WR-LV-2400	POTABLE WATER SUPPLY T WASTE WATER DRAIN LEVEL VALVE	BUTTERFLY VALVE	M6-WR-00001
1-WR-LV-2408	SOFTENED WATER STORAGE TANK LEVEL VALVE	BUTTERFLY VALVE	M6-WR-00001
1-WR-LV-2420	BRINE SOLUTION TANK INLET LEVEL VALVE	GLOBE VALVE	M6-WR-00001
1-WR-LV-2430	SOFTENED WATER SUPPLY PUMP TO SURGE WATER TANK LEVEL VALVE	GLOBE VALVE	M6-WR-00001
1-QG-FV-2514	3RD STAGE ANIT SURGE TO CO2 COMP 2ND STAGE STEAM GEN. FLOW VALVE	GLOBE VALVE	M6-QG-00090
1-QG-PV-2546	CO2 SURGE DRUM VENT VALVE	GLOBE VALVE	M6-QG-00110
1-QG-FV-2556A	CO2 COMP SENDOUT PUMP DISCHARGE FLOW VALVE A	GLOBE VALVE	M6-QG-00110
1-QG-FV-2556B	CO2 COMP SENDOUT PUMP DISCHARGE FLOW VALVE B	GLOBE VALVE	M6-QG-00110
1-QG-LV-2564	CO2 TO STORAGE LEVEL VALVE	GLOBE VALVE	M6-QG-00110
1-QG-LV-2572	LP COND FROM FLASH TANK TO CO2 COMP 1ST STAGE STEAM GEN. LEVEL VALVE	GLOBE VALVE	M6-QG-00030
1-QG-PV-2578	COMPRESSOR 1ST STAGE STEAM GEN PRESS CTRL VALVE	GLOBE VALVE	M6-QG-00030
1-QG-LV-2582	LP COND FROM FLASH TANK TO CO2 COMP 2ND STAGE STEAM GEN. LEVEL VALVE	GLOBE VALVE	M6-QG-00060
1-QG-PV-2588	COMPRESSOR 2ND STAGE STEAM GEN. PRESSURE VALVE	GLOBE VALVE	M6-QG-00060
1-QG-LV-2592	LP COND FROM FLASH TANK TO CO2 COMP 3RD STAGE STEAM GEN. LEVEL VALVE	GLOBE VALVE	M6-QG-00100
1-QG-PV-2598	COMPRESSOR 3RD STAGE STEAM GEN PRESS CTRL VALVE	GLOBE VALVE	M6-QG-00100
1-PG-PCV-2600	NITROGEN CYCLINDERS TO NITROGEN TANK AREA PRESSURE REGULATOR	PRESSURE REGULATOR	M6-PG-00001
1-PG-PCV-2604	NITROGEN CYLINDERS TO AMINE STORAGE TANK PRESSURE REGULATOR	PRESSURE REGULATOR	M6-PG-00001
1-PG-PCV-2610	TO LEAN AMINE (35% MEA) STORAGE TANK PRESSURE REGULATOR	PRESSURE REGULATOR	M6-PG-00001
1-PG-PCV-2614	TO AMINE STORAGE (CONCENTRATED) TANK	PRESSURE REGULATOR	M6-PG-00001