







EPCC Contractor:  TIANCHEN CORP. CHINA	PROJECT	MKP Methanol Project			Owner :  شرکت کیمیاوی پارس خاور میانه Mideco East Khuzestan Pars Co.
	UNIT	General Technical	PHASE	Basic Engineering	
	Owner No.	MKP-11-BE-9000-PR-LST-003			
	Contractor No.	MKP-11-BE-9000-PS15-LST-001			
Licensor: HALDOR TOPSOE 	TOPSOE No.	N/A			Rev. : 0 Page : 1 of 10

SAFETY VALVE SUMMARY LIST

REV.	DATE	PURPOSE OF ISSUE	PREPARE	CHECK	REVIEW	APPROVE
0	3.5.2016	Final Issue	Xu Yekun	Xu Hang	Shi Jing	
C	11.4.2016	Issued For Review	Xu Yekun	Xu Hang	Shi Jing	
B1	14.3.2016	Issued For Review	Xu Yekun	Xu Hang	Shi Jing	
B	1.2.2016	Issued For Review	Xu Yekun	Xu Hang	Shi Jing	
A	30.12.2015	Issued For Review	Xu Yekun	Xu Hang	Shi Jing	

EPCC Contractor:  TIANCHEN CORP. CHINA	PROJECT	MKP Methanol Project			Owner :  شركة البترول والغاز في الشرق الأوسط Middle East Petrochem Pura Co.
	UNIT	General Technical	PHASE	Basic Engineering	
	Owner No.	MKP-11-BE-9000-PR-LST-003			
	Contractor No.	MKP-11-BE-9000-PS15-LST-001			
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No.	Tag No.	No. Req'd	P&ID No.	Location	Protect Object	Fluid Phase (MW)	Operating Conditions			Design Conditions			Exhaust Destination	Specification						Remarks
							Fluid	Press. (barg)	Temp. (°C)	Set Press. (barg)	Back Press. (barg)	Capacity kg/h(L) Nm ³ /h(G)		Size		Rating/Connection		Material		
														Inlet/Outlet	Orifice (cm ²)	Inlet	Outlet	Body & Bonnet	Nozzle /Seat	
1	PSV-1008	1	1000-PID-002	1 1/2"-NG-10-108-F24-N		G (16.74)	Natural Gas	50	40	55	<1.5	1)	Flare	1 1/2"	D,0.71	Class 600/ RF	Class 150/ RF	A 216 WCB	SS 316	1) At relieving conditions there is no flow so minimum size PSV is chosen
2	PSV-1009	1	1000-PID-002	1 1/2"-NG-10-109-F24-N		G (16.74)	Natural Gas	50	40	55	<1.5	1)	Flare	1 1/2"	D,0.71	Class 600/ RF	Class 150/ RF	A 216 WCB	SS 316	1) At relieving conditions there is no flow so minimum size PSV is chosen
3	PSV-1013	1	1000-PID-002	8"-NG-10-110-B24-N		G (16.74)	Natural Gas	4	35	7	<1.5	37000	Flare	6"/8"	Q,71.3	Class 150/ RF	Class 150/ RF	A 216 WCB	SS 316	
4	PSV-1014	1	1000-PID-002	8"-NG-10-111-B24-N		G (16.74)	Natural Gas	4	35	7	<1.5	37000	Flare	6"/8"	Q,71.3	Class 150/ RF	Class 150/ RF	A 216 WCB	SS 316	
5	PSV-1015	1	1000-PID-002	1 1/2"-NG-10-112-F24-N	D 1001	G (16.74)	Natural Gas	52	40	60	<1.5	1)	Flare	1 1/2"	D,0.71	Class 600/ RF	Class 150/ RF	A 216 WCB	SS 316	1) Exposed area=9 m ² F=0.01
6	PSV-1031	1	1000-PID-003	1 1/2"-PRG-10-102-F24-H	R 1001	G (16.54)	Process Gas	48.8	380	55	<1.5	1)	Flare	1 1/2"	D,0.71	Class 600/ RF	Class 150/ RF	A 216 WCB	SS 316	1) Exposed area=20 m ² F=0.01
7	PSV-1038	1	1000-PID-003	1 1/2"-PRG-10-103-F24-H	R 1002 1	G (16.54)	Process Gas	48.3	375	55	<1.5	1)	Flare	1 1/2"	D,0.71	Class 600/ RF	Class 150/ RF	A 216 WCB	SS 316	1) Exposed area=20 m ² F=0.01
8	PSV-1043	1	1000-PID-003	1 1/2"-PRG-10-106-F24-H	R 1002 2	G (16.54)	Process Gas	48.3	375	55	<1.5	1)	Flare	1 1/2"	D,0.71	Class 600/ RF	Class 150/ RF	A 216 WCB	SS 316	1) Exposed area=20 m ² F=0.01
9	PSV-2376	1	2000-PID-013	D2001	D2001	S (18.02)	HHPS	102	313	112	0	107500	Atmosphere	3"/6"	21.55	Class 900/ RTJ	Class 300/ RF	A 216 WCB	SS 316	Vendor to confirm inlet/outlet sizes,area and ratings
10	PSV-2377	1	2000-PID-013	D2001	D2001	S (18.02)	HHPS	102	313	115.2	0	107500	Atmosphere	3"/6"	21.55	Class 900/ RTJ	Class 300/ RF	A 216 WCB	SS 316	Vendor to confirm inlet/outlet sizes,area and ratings
11	PSV-2378	1	2000-PID-013	D2001	D2001	S (18.02)	HHPS	102	313	115.2	0	107500	Atmosphere	3"/6"	21.55	Class 900/ RTJ	Class 300/ RF	A 216 WCB	SS 316	Vendor to confirm inlet/outlet sizes,area and ratings
12	PSV-2379	1	2000-PID-013	D2001	D2001	S (18.02)	HHPS	102	313	115.2	0	107500	Atmosphere	3"/6"	21.55	Class 900/ RTJ	Class 300/ RF	A 216 WCB	SS 316	Vendor to confirm inlet/outlet sizes,area and ratings
13	PSV-2380	1	2000-PID-013	D2001	D2001	S (18.02)	HHPS	102	313	112	0	107500	Atmosphere	3"/6"	21.55	Class 900/ RTJ	Class 300/ RF	A 216 WCB	SS 316	Vendor to confirm inlet/outlet sizes,area and ratings PSV-2380 is spare
14	PSV-2458	1	2000-PID-015	3"-DMW-20-102-B50-H1	10"-DMW-20-104-B50-H1	G (12.06)	Deminer alized Water	4.5	72	14	0	13200	Atmosphere	3"/4"	K,11.86	Class 150/ RF	Class 150/ RF	A 351 CF8	SS 316	
15	PSV-2494	1	2000-PID-016	3"-CWR-20-102-B24-N	12"-CWR-20-101-B24-N	G (11.24)	CW Return	1.5	48	7.5	0	6000	Atmosphere	2"/3"	J,8.3	Class 150/ RF	Class 150/ RF	A 216 WCB	SS 316	
16	PSV-2546	1	2000-PID-017	1 1/2"-N-20-118-B24-N	2"-N-20-117-B24-N	G (28.01)	Nitrogen GAS	6	40	7	0	1350	Atmosphere	1 1/2"/3"	G,3.24	Class 150/ RF	Class 150/ RF	A 216 WCB	SS 316	Capacity to be checked against actual selected Cv of control valve



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No.	Tag No.	No. Req'd	P&ID No.	Location	Protect Object	Fluid Phase (MW)	Operating Conditions			Design Conditions			Exhaust Destination	Specification						Remarks
							Fluid	Press. (barg)	Temp. (°C)	Set Press. (barg)	Back Press. (barg)	Capacity kg/h(L) Nm ³ /h(G)		Size		Rating/Connection		Material		
														Inlet/Outlet	Orifice (cm ²)	Inlet	Outlet	Body & Bonnet	Nozzle /Seat	
17	PSV-2555	1	2000-PID-017	1 1/2"-N-20-119-B24-N	2"-N-20-117-B24-N	G (28.01)	Nitrogen GAS	6	40	7	0	1350	Atmosphere	1 1/2"/3"	G,3.24	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	Capacity to be checked against actual selected Cv of control valve PSV-2555 is spare
18	PSV-2581	1	2000-PID-018	6"-N-20-120-B24-N	10"-N-20-104-B24-P1	G (28.01)	Nitrogen GAS	6	40	10.5	0	31210	Atmosphere	4"/6"	P,41.2	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	Capacity to be confirmed by C2001 vendor
19	PSV-2604	1	2000-PID-019	1 1/2"-HG-20-104-F24-N	3"-HG-20-103-F24-N	G (9.37)	Hydrogen Gas	48	50.4	60	1.5	9500	Flare	1 1/2"/2"	F,1.98	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	Capacity to be checked against actual selected Cv of control valve
20	PSV-2605	1	2000-PID-019	1 1/2"-HG-20-106-F24-N	3"-HG-20-103-F24-N	G (9.37)	Hydrogen Gas	48	50.4	60	1.5	9500	Flare	1 1/2"/2"	F,1.98	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	Capacity to be checked against actual selected Cv of control valve PSV-2605 is spare
21	PSV-3047	1	3000-PID-002	8"-MPS-30-112-F24-H	D3003	S (18.02)	MP steam	33.7	242	45.0	0.0	155000 kg/h	Atmosphere	6" / 8"	79	Class 600/RF	Class 300/RF	A 216 WCB	SS 316	Two ring blowdown adjustment the total relieving capacity 310000 kg/h is shared by PSV-3047 & -3048
22	PSV-3048	1	3000-PID-002	8"-MPS-30-110-F24-H	D3003	S (18.02)	MP steam	33.7	242	46.3	0.0	155000 kg/h	Atmosphere	6" / 8"	79	Class 600/RF	Class 300/RF	A 216 WCB	SS 316	1) At relieving conditions there is no flow so minimum size PSV is chosen
23	PSV-3057	1	3000-PID-002	8"-MPS-30-113-F24-H	D3003	S (18.02)	MP steam	33.7	242	45.0	0.0	155000 kg/h	Atmosphere	6" / 8"	79	Class 600/RF	Class 300/RF	A 216 WCB	SS 316	PSV-3057 is spare
24	PSV-3143	1	3000-PID-005	6"-CWR-30-103-B24-N	E3003 1	G (18.02)	Water Cooling	1.5	48	7.5	0.0	43700	Atmosphere	6" / 8"	Q,71.3	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	
25	PSV-3146	1	3000-PID-005	6"-CWR-30-107-B24-N	E3003 2	G (18.02)	Water Cooling	1.5	48	7.5	0.0	43700	Atmosphere	6" / 8"	Q,71.3	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	
26	PSV-3149	1	3000-PID-005	6"-CWR-30-109-B24-N	E3003 3	G (18.02)	Water Return	1.5	48	7.5	0.0	43700	Atmosphere	6" / 8"	Q,71.3	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	
27	PSV-3163	1	3000-PID-006	3"-SG-30-137-G40-N	D3001	G (9.37)	Synthesis Gas	76.2	48	99.0	<1.5	1) 642.3 kg/h	Flare stack	3" / 4"	J,6.34	Class 900/RTJ	Class 150/RF	A 351 CF8	SS 316	1) Exposed area=113m ² , F'=0.03
28	PSV-3173	1	3000-PID-006	10"-PG-30-105-B24-N	24"-PG-30-104-B24-N	G (9.37)	Purge Gas	4.0	47	7.0	<1.5	100000	Flare stack	8" / 10"	T,167.7	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	
29	PSV-3174	1	3000-PID-006	10"-PG-30-107-B24-N	24"-PG-30-104-B24-N	G (9.37)	Purge Gas	4.0	47	7.0	<1.5	100000	Flare stack	8" / 10"	T,167.7	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	PSV-3174 is spare
30	PSV-3196	1	3000-PID-007	10"-PG-30-103-B40-N	D3002	G (25.95)	Purge Gas	4.0	48	7.0	<1.5	80000	Flare stack	6" / 10"	R,103.2	Class 300/RF	Class 150/RF	A 351 CF8	SS 316	Max. gas breakthrough FO-3191 The total relieving capacity 160000 Nm ³ /h is shared by PSV-3196 & -3197



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No.	Tag No.	No. Req'd	P&ID No.	Location	Protect Object	Fluid Phase (MW)	Operating Conditions			Design Conditions			Exhaust Destination	Specification						Remarks
							Fluid	Press. (barg)	Temp. (°C)	Set Press (barg)	Back Press. (barg)	Capacity kg/h(L) Nm ³ /h(G)		Size		Rating/Connection		Material		
														Inlet/Outlet	Orifice (cm ²)	Inlet	Outlet	Body & Bonnet	Nozzle /Seat	
31	PSV-3197	1	3000-PID-007	10"-PG-30-111-B40-N	D3002	G (25.95)	Purge Gas	4.0	48	7.4	<1.5	80000	Flare stack	6" / 10"	R,103.2	Class 300/ RF	Class 150/ RF	A 351 CF8	SS 316	Max. gas breakthrough FO-3191 The total relieving capacity 160000 Nm3/h is shared by PSV-3196 & -3197
32	PSV-3206	1	3000-PID-007	10"-PG-30-113-B40-N	D3002	G (25.95)	Purge Gas	4.0	48	7.0	<1.5	80000	Flare stack	6" / 10"	R,103.2	Class 300/ RF	Class 150/ RF	A 351 CF8	SS 316	Max. gas breakthrough FO-3191 The total relieving capacity 160000 Nm3/h is shared by PSV-3196 & -3197. PSV-3206 is spare
33	PSV-4001	1	4000-PID-001	1"-PMP-40-134-B24-N	16"-PMP-40-101-B24-N	L (32)	Methanol	5.0	48	14.0	2.0		TK 4001 1	1"/1"	D,0.71	Class 150/ RF	Class 150/ RF			
34	PSV-4002	1	4000-PID-002	1"-PMP-40-133-B24-N	16"-PMP-40-114-B24-N	L (32)	Methanol	6.9	48	14.0	2.0		TK 4001 2	1"/1"	D,0.71	Class 150/ RF	Class 150/ RF			
35	PSV-5006	1	5000-PID-001	TK 5001	TK 5001	G	Methanol Vapour	0	46	-0.0055/0.02	0.0	35000	Atmosphere	Hold	N/A	Class 150/ RF	Class 150/ RF	A 216 WCB	By vendor	Emergency relief valve.
36	PVSV-5007	1	5000-PID-001	20"-PMV-50-102-B40-N	TK 5001	G	Methanol Vapour	0	46	-0.005/0.015	0.0	In:3220/ Out:5455	Atmosphere	20"/20"	N/A	Class 150/ RF	Class 150/ RF	A 216 WCB	By vendor	
37	PSV-5058	1	5000-PID-002	10"-PMV-50-111-B24A-P1	T 5001	G	Methanol Vapour	0.7	78	3.5	1.5	29670	Flare	8"/10"	T,167.7	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	The total relieving capacity 89000 Nm3/h is shared by PSV-5058, -5059 & -5060
38	PSV-5059	1	5000-PID-002	10"-PMV-50-112-B24A-P1	T 5001	G	Methanol Vapour	0.7	78	3.7	1.5	29670	Flare	8"/10"	T,167.7	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	The total relieving capacity 89000 Nm3/h is shared by PSV-5058, -5059 & -5060
39	PSV-5060	1	5000-PID-002	10"-PMV-50-123-B24A-P1	T 5001	G	Methanol Vapour	0.7	78	3.7	1.5	29670	Flare	8"/10"	T,167.7	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	The total relieving capacity 89000 Nm3/h is shared by PSV-5058, -5059 & -5060
40	PSV-5061	1	5000-PID-002	10"-PMV-50-124-B24A-P1	T 5001	G	Methanol Vapour	0.7	78	3.5	1.5	29670	Flare	8"/10"	T,167.7	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	PSV-5061 is spare
41	PSV-5073	1	5000-PID-003	1 1/2"-LPS-50-101-B24-P2	D 5009	V	LP Steam	2.4	138	9.5	0.0	600	Atmosphere	1"/2"	E,1.26	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	
42	PSV-5085	1	5000-PID-003	3/4"-CWR-70-125-B24-N	E 7003 1	L	Cooling Water Return	1.5	48	7.5	0.0	6125	Drain	3/4"/1"	D,0.71	Class 150/NPT	Class 150/NPT	A 216 WCB	SS 316	
43	PSV-5108	1	5000-PID-004	3/4"-CWR-50-102-B24-N	E 5010	L	Cooling Water Return	1.5	48	7.5	0.0	112	Drain	3/4"/1"	D,0.71	Class 150/NPT	Class 150/NPT	A 216 WCB	SS 316	
44	PSV-5179	1	5000-PID-006	6"-PMV-50-131-B24-P1	T 5002	G	Methanol Vapour	0.1	67	3.5	<1.5	4000	Flare	3"/4"	L,18.41	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	

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No.	Tag No.	No. Req'd	P&ID No.	Location	Protect Object	Fluid Phase (MW)	Operating Conditions			Design Conditions			Exhaust Destination	Specification						Remarks
							Fluid	Press. (barg)	Temp. (°C)	Set Press (barg)	Back Press. (barg)	Capacity kg/h(L) Nm ³ /h(G)		Size		Rating/Connection		Material		
														Inlet/Outlet	Orifice (cm ²)	Inlet	Outlet	Body & Bonnet	Nozzle /Seat	
45	PSV-5180	1	5000-PID-006	6"-PMV-50-132-N24-P1	T 5002	G	Methanol Vapour	0.1	67	3.5	<1.5	4000	Flare	3"/4"	L,18.41	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	
46	PSV-5220	1	5000-PID-008	3/4"-CWR-50-105-B24-N	E 5008	L	Cooling Water Return	1.5	48	7.5	0.0	600	Drain	3/4"/1"	D,0.71	Class 150/NPT	Class 150/NPT	A 216 WCB	SS 316	
47	PSV-5250	1	5000-PID-010	10"-PMV-50-151-B24-H2	T 5003	G	Methanol Vapour	2.7	102	6.0	1.5	41403	Flare	6"/8"	R,103.2	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	The total relieving capacity 82805 Nm ³ /h is shared by PSV-5250 & -5251
48	PSV-5251	1	5000-PID-010	10"-PMV-50-152-B24-H2	T 5003	G	Methanol Vapour	2.7	102	6.3	1.5	41403	Flare	6"/8"	R,103.2	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	The total relieving capacity 82805 Nm ³ /h is shared by PSV-5250 & -5251
49	PSV-5261	1	5000-PID-010	10"-PMV-50-193-B24-H2	T 5003	G	Methanol Vapour	2.7	102	6.0	1.5	41403	Flare	6"/8"	R,103.2	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	PSV-5261 is spare
50	PSV-5308	1	5000-PID-011	3/4"-CWR-50-128-B24-N	E 7003 2	L	Cooling Water Return	1.5	48	7.5	0.0	1300	Drain	3/4"/1"	D,0.71	Class 150/NPT	Class 150/NPT	A 216 WCB	SS 316	
51	PSV-5339	1	5000-PID-012	3/4"-CWR-50-108-B24-N	E 5012	L	Cooling Water Return	1.5	48	7.5	0.0	1400	Drain	3/4"/1"	D,0.71	Class 150/NPT	Class 150/NPT	A 216 WCB	SS 316	
52	PSV-5370	1	5000-PID-013	3/4"-CWR-50-110-B24-N	E 5007	L	Cooling Water Return	1.5	48	7.5	0.0	60	Drain	3/4"/1"	D,0.71	Class 150/NPT	Class 150/NPT	A 216 WCB	SS 316	
53	PSV-5384	1	5000-PID-014	3"-PMP-50-180-D24-N	X 5001 A	G	Methanol	3.0	48	19.0	<1.5	4120	Flare	1 1/2"/3"	H,5.06	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	
54	PSV-5386	1	5000-PID-014	3"-PMP-50-194-D24-N	X 5001 B	G	Methanol	3.0	48	19.0	<1.5	4120	Flare	1 1/2"/3"	H,5.06	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	
55	PSV-5400	1	5000-PID-015	TK 5002 1	TK 5002 1	G	Nitrogen/M ethanol vapour	0.0	48	-0.0055/0.02	0.0	12000	Atmosphere	Hold	N/A	Class 150/RF	Class 150/RF	A 216 WCB	By vendor	Emergency relief valve.
56	PVSV-5401	1	5000-PID-015	16"-PMV-50-182-B24-N	TK 5002 1	G	Nitrogen/M ethanol vapour	0.0	48	-0.005/0.015	0.0	In:1430/Out:4090	Atmosphere	16"/16"	N/A	Class 150/RF	Class 150/RF	A 216 WCB	By vendor	
57	PSV-5405	1	5000-PID-015	3"-PMP-50-162-F24-N	P 5012 A	G	Methanol Product	47.0	48	52.0	3.0	By P5012 Vendor	TK 5002 1	By vendor	By vendor	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	
58	PSV-5409	1	5000-PID-015	3"-PMP-50-166-F24-N	P 5012 B	G	Methanol Product	47.0	48	52.0	3.0	By P5012 Vendor	TK 5002 1	By vendor	By vendor	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	
59	PSV-5417	1	5000-PID-016	TK 5002 2	TK 5002 2	G	Nitrogen/M ethanol vapour	0.0	48	-0.0055/0.02	0.0	12000	Atmosphere	Hold	N/A	Class 150/RF	Class 150/RF	A 216 WCB	By vendor	Emergency relief valve.
60	PVSV-5418	1	5000-PID-016	16"-PMV-50-184-B24-N	TK 5002 2	G	Nitrogen/M ethanol vapour	0.0	48	-0.005/0.015	0.0	In:1430/Out:4090	Atmosphere	16"/16"	N/A	Class 150/RF	Class 150/RF	A 216 WCB	By vendor	



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No.	Tag No.	No. Req'd	P&ID No.	Location	Protect Object	Fluid Phase (MW)	Operating Conditions			Design Conditions			Exhaust Destination	Specification						Remarks
							Fluid	Press. (barg)	Temp. (°C)	Set Press. (barg)	Back Press. (barg)	Capacity kg/h(L) Nm ³ /h(G)		Size		Rating/Connection		Material		
														Inlet/Outlet	Orifice (cm ²)	Inlet	Outlet	Body & Bonnet	Nozzle /Seat	
61	PSV-5524	1	5000-PID-018	1 1/2"-PRG-50-102-F24-H4	T 5005	V	HP Steam	42.3	240	55.0	1.5	475	Flare	1 1/2"	D,0.71	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	
62	PSV-5444	1	5000-PID-017	3/4"-CWR-50-114-B24-N	E 5011	L	Cooling Water Return	1.5	48	7.5	0.0	60	Drain	3/4"/1"	D,0.71	Class 150/NPT	Class 150/NPT	A 216 WCB	SS 316	
63	PSV-5450	1	5000-PID-017	TK 5003	TK 5003	G	Nitrogen/Methanol vapour	0.01	48	-0.0055/0.02	0.0	8000	Atmosphere	Hold	N/A	Class 150/RF	Class 150/RF	A 216 WCB	By vendor	Emergency relief valve.
64	PVSV-5451	1	5000-PID-017	3"-PMV-50-191-B24-N	TK 5003	G	Nitrogen/Methanol vapour	0.01	48	-0.005/0.015	0.0	In:19/Out:29	Atmosphere	3"/3"	N/A	Class 150/RF	Class 150/RF	A 216 WCB	By vendor	
65	PSV-5461	1	5000-PID-017	2"-LOS-50-122-F24-N	P 5009 A	L	Liquid Off-Stream	53.0	50	60.0	2.0	By P5009 Vendor	TK 5003	By vendor	By vendor	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	
66	PSV-5462	1	5000-PID-017	2"-LOS-50-123-F24-N	P 5009 B	L	Liquid Off-Stream	53.0	50	60.0	2.0	By P5009 Vendor	TK 5003	By vendor	By vendor	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	
67	PSV-5501	1	5000-PID-021	3/4"-CWR-50-119-B24-N	E 5015	L	Cooling Water Return	1.5	48	7.5	0.0	225	Drain	3/4"/1"	D,0.71	Class 150/NPT	Class 150/NPT	A 216 WCB	SS 316	
68	PSV-5505	1	5000-PID-021	3"-PMW-50-144-B24-N	E 5015	L	Methanol Water	3.0	62	7.5	0.0	30000 kg/h	Drain	1 1/2"/3"	H,5.06	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	
69	PSV-5512	1	5000-PID-020	Hold"-NS-50-Hold-B40-N	P 5070 A	L	NaOH Solution	2.0	35	7.0	5.0	By vendor	TK 5050	By vendor	By vendor	Class 150/RF	Class 150/RF	A 351 CF8	SS 316	
70	PSV-5514	1	5000-PID-020	Hold"-NS-50-Hold-B40-N	P 5070 B	L	NaOH Solution	2.0	35	7.0	5.0	By vendor	TK 5050	By vendor	By vendor	Class 150/RF	Class 150/RF	A 351 CF8	SS 316	
71	PSV-6021	1	6000-PID-002	1 1/2"-PRC-60-196-G40-H	T 6001 1/2	L (18.02)	Process Condensate	44.0	119	71.0	0.00	1)	Atmosphere	1 1/2"	D,0.71	Class 900/RTJ	Class 150/RF	A 351 CFB	SS 316	1) At relieving conditions there is no flow so minimum size PSV is chosen
72	PSV-6022	1	6000-PID-002	1 1/2"-PRC-60-195-G40-H	T 6001 1/2	L (18.02)	Process Condensate	44.0	119	71.0	0.00	1)	Atmosphere	1 1/2"	D,0.71	Class 900/RTJ	Class 150/RF	A 351 CFB	SS 316	1) At relieving conditions there is no flow so minimum size PSV is chosen
73	PSV-6027	1	6000-PID-002	1 1/2"-MPS-60-103-F24-H	T 6001 1/2	S (18.02)	Medium Pressure Steam	32.7	240	45.0	0.00	2560 kg/h	Atmosphere	1 1/2"	E,1.26	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	
74	PSV-6053	1	6000-PID-003	1 1/2"-PRG-60-124-F24-H	D 6001	G (17.47)	Process Gas	42.8	226	55.0	0.00	3800 kg/h	Flare	1 1/2"	E,1.26	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	
75	PSV-6085	1	6000-PID-004	3/4"-CWR-60-102-B24-N	E 6003	L (18.02)	Cooling Water Return	1.5	48	7.5	0.00	705 kg/h	Drain	3/4"/1"	D,0.71	Class 150/NPT	Class 150/NPT	A 216 WCB	SS 316	

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No.	Tag No.	No. Req'd	P&ID No.	Location	Protect Object	Fluid Phase (MW)	Operating Conditions			Design Conditions			Exhaust Destination	Specification						Remarks
							Fluid	Press. (barg)	Temp. (°C)	Set Press (barg)	Back Press. (barg)	Capacity kg/h(L) Nm ³ /h(G)		Size		Rating/Connection		Material		
														Inlet/Outlet	Orifice (cm ²)	Inlet	Outlet	Body & Bonnet	Nozzle /Seat	
76	PSV-7010	1	7000-PID-006	10"-HPS-70-110-F24-H6	28"-HPS-70-116-F24-H6	S (18.02)	Steam	44.0	345	52.0	0.00	254500	Atmosphere	6"/10"	103.2	Class 600/RF	Class 300/RF	A 216 WCB	SS 316	
77	PSV-7011	1	7000-PID-006	10"-HPS-70-112-F25-H6	28"-HPS-70-116-F24-H6	S (18.02)	Steam	44.0	345	54.6	0.00	254500	Atmosphere	6"/10"	103.2	Class 600/RF	Class 300/RF	A 216 WCB	SS 316	
78	PSV-7012	1	7000-PID-006	10"-HPS-70-114-F26-H6	28"-HPS-70-116-F24-H6	S (18.02)	Steam	44.0	345	52.0	0.00	254500	Atmosphere	6"/10"	124.4	Class 600/RF	Class 300/RF	A 216 WCB	SS 316	spare
79	PSV-7013	1	7000-PID-006	2"-BFW-70-106-H34-H2	2"-BFW-70-106-H34-H2	L (18.02)	BFW	120.0	122	170.0	0.00	1)	Atmosphere	1"/1"	D 0.71	Class 1500/RTJ	Class 300/RF	A 217 WC6	SS 316	PSV may not be required depending on design of PV-7002A
80	PSV-7014	1	7000-PID-006	3"-BFW-70-144-H34-H2	3"-BFW-70-144-H34-H2	L (18.02)	BFW	120.0	122	170.0	0.00	1)	Atmosphere	1"/1"	D 0.71	Class 1500/RTJ	Class 300/RF	A 217 WC6	SS 316	PSV may not be required depending on design of PV-7002B
81	PSV-7015	1	7000-PID-006	3"-BFW-70-142-H34-H2	3"-BFW-70-142-H34-H2	L (18.02)	BFW	120.0	122	170.0	0.00	1)	Atmosphere	1"/1"	D 0.71	Class 1500/RTJ	Class 300/RF	A 217 WC6	SS 316	PSV may not be required depending on design of PV-7002C
82	PSV-7023	1	7000-PID-007	10"-HPS-70-134-F34-H8	24"-HPS-70-107-F34-H8	S (18.02)	Steam	43.0	345	52.0	0.00	267300	Atmosphere	6"/10"	124.4	Class 600/RF	Class 300/RF	A 216 WCB	SS 316	
83	PSV-7024	1	7000-PID-007	10"-HPS-70-135-F34-H8	24"-HPS-70-107-F34-H8	S (18.02)	Steam	43.0	345	52.0	0.00	267300	Atmosphere	6"/10"	124.4	Class 600/RF	Class 300/RF	A 216 WCB	SS 316	spare
84	PSV-7016	1	7000-PID-007	2"-BFW-70-158-H34-H2	2"-BFW-70-158-H34-H2	L (18.02)	BFW	120.0	122	170.0	0.00	1)	Atmosphere	1"/1"	D 0.71	Class 1500/RTJ	Class 300/RF	A 217 WC6	SS 316	PSV may not be required depending on design of PV-7025A
85	PSV-7017	1	7000-PID-007	2"-BFW-70-157-H34-H2	2"-BFW-70-157-H34-H2	L (18.02)	BFW	120.0	122	170.0	0.00	1)	Atmosphere	1"/1"	D 0.71	Class 1500/RTJ	Class 300/RF	A 217 WC6	SS 316	PSV may not be required depending on design of PV-7025B
86	PSV-7036	1	7000-PID-008	1 1/2"-MPS-70-122-F24-H4	24"-MPS-70-115-F24-H4	S (18.02)	Steam	32.7	240	45.0	0.00	1)	Atmosphere	1/2"	D 0.71	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	1)No flow at relieving condition so minimum size PSV choosen
87	PSV-7037	1	7000-PID-008	1 1/2"-MPS-70-123-F24-H4	24"-MPS-70-115-F24-H4	S (18.02)	Steam	32.7	240	45.0	0.00	1)	Atmosphere	1/2"	D 0.71	Class 600/RF	Class 150/RF	A 216 WCB	SS 316	1)No flow at relieving condition so minimum size PSV choosen .PSV-7037spare
88	PSV-7032	1	7000-PID-008	2"-BFW-70-109-F24-H2	2"-BFW-70-109-F24-H2	L (18.02)	BFW	50.0	122	80.0	0.00	1)	Atmosphere	3/4"/1"	D 0.71	Class 600 NPT	Class 150/ NPT	A 216 WCB	SS 316	PSV may not be required depending on design of PV-7031A
89	PSV-7033	1	7000-PID-008	2"-BFW-70-111-F24-H2	2"-BFW-70-111-F24-H2	L (18.02)	BFW	50.0	122	80.0	0.00	1)	Atmosphere	3/4"/1"	D 0.71	Class 600 NPT	Class 150/ NPT	A 216 WCB	SS 316	PSV may not be required depending on design of PV-7031B
90	PSV-7057	1	7000-PID-009	10"-LPS-70-111-D24-P3	32"-LPS-70-108-D24-H3	S (18.02)	Steam	7.0	188	9.5	0.00	80063	Atmosphere	8"/10"	T 167.7	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	



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No.	Tag No.	No. Req'd	P&ID No.	Location	Protect Object	Fluid Phase (MW)	Operating Conditions			Design Conditions			Exhaust Destination	Specification						Remarks
							Fluid	Press. (barg)	Temp. (°C)	Set Press (barg)	Back Press. (barg)	Capacity kg/h(L) Nm ³ /h(G)		Size		Rating/Connection		Material		
														Inlet/Outlet	Orifice (cm ²)	Inlet	Outlet	Body & Bonnet	Nozzle /Seat	
91	PSV-7058	1	7000-PID-009	10"-LPS-70-110-D24-P3	32"-LPS-70-108-D24-H3	S (18.02)	Steam	7.0	188	9.9	0.00	80063	Atmosphere	8"/10"	T 167.7	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	
92	PSV-7059	1	7000-PID-009	10"-LPS-70-113-D24-P3	32"-LPS-70-108-D24-H3	S (18.02)	Steam	7.0	188	9.9	0.00	80063	Atmosphere	8"/10"	T 167.7	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	
93	PSV-7060	1	7000-PID-009	10"-LPS-70-141-D24-P3	32"-LPS-70-108-D24-H3	S (18.02)	Steam	7.0	188	9.9	0.00	80063	Atmosphere	8"/10"	T 167.7	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	
94	PSV-7061	1	7000-PID-009	10"-LPS-70-140-D24-P3	32"-LPS-70-108-D24-H3	S (18.02)	Steam	7.0	188	9.5	0.00	80063	Atmosphere	8"/10"	T 167.7	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	spare
95	PSV-7052	1	7000-PID-009	2"-BFW-70-122-F24-H2	2"-BFW-70-122-F24-H2	L (18.02)	BFW	50.0	122	80.0	0.00	1)	Atmosphere	3/4"/1"	D 0.71	Class 600 NPT	Class 150/ NPT	A 216 WCB	SS 316	PSV may not be required depending on design of PV-7051A
96	PSV-7053	1	7000-PID-009	2"-BFW-70-123-F24-H2	2"-BFW-70-123-F24-H2	L (18.02)	BFW	50.0	122	80.0	0.00	1)	Atmosphere	3/4"/1"	D 0.71	Class 600 NPT	Class 150/ NPT	A 216 WCB	SS 316	PSV may not be required depending on design of PV-7051B
97	PSV-7072	1	7000-PID-010	2"-BFW-70-124-F24-H2	2"-BFW-70-124-F24-H2	L (18.02)	BFW	50.0	122	80.0	0.00	1)	Atmosphere	3/4"/1"	D 0.71	Class 600 NPT	Class 150/ NPT	A 216 WCB	SS 316	
98	PSV-7073	1	7000-PID-010	2"-BFW-70-145-F24-H2	2"-BFW-70-145-F24-H2	L (18.02)	BFW	50.0	122	80.0	0.00	1)	Atmosphere	3/4"/1"	D 0.71	Class 600 NPT	Class 150/ NPT	A 216 WCB	SS 316	
99	PSV-7095	1	7000-PID-011	10"-LPS-70-132-B24-H2	D7001	S (18.02)	Steam	1.0	120	3.5	0.00	32000	Atmosphere	8"/10"	T 167.7	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	
100	PSV-7096	1	7000-PID-011	10"-LPS-70-133-B24-H2	D7001	S (18.02)	Steam	1.0	120	3.67	0.00	32000	Atmosphere	8"/10"	T 167.7	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	
101	PSV-7097	1	7000-PID-011	10"-LPS-70-197-B24-H2	D7001	S (18.02)	Steam	1.0	120	3.5	0.00	32000	Atmosphere	8"/10"	T 167.7	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	spare
102	PSV-7132	1	7000-PID-012	HOLD-LPS-70-120-D24-P3	14"-LPS-70-121-D24-H3	S (18.02)	Steam	7.5	191	9.5	0.00	1)	Atmosphere	1)	1)	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	1)Capacity and sizing by FT7001A Vendor
103	PSV-7134	1	7000-PID-012	HOLD-LPS-70-122-D24-P3	14"-LPS-70-121-D24-H3	S (18.02)	Steam	7.5	191	9.5	0.00	1)	Atmosphere	1)	1)	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	1)Capacity and sizing by FT7001A Vendor PSV-7134 is spare
104	PSV-7136	1	7000-PID-012	HOLD-LPS-70-124-D24-P3	14"-LPS-70-125-D24-H3	S (18.02)	Steam	7.5	191	9.5	0.00	1)	Atmosphere	1)	1)	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	1)Capacity and sizing by FT7001B Vendor
105	PSV-7137	1	7000-PID-012	HOLD-LPS-70-123-D24-P3	14"-LPS-70-125-D24-H3	S (18.02)	Steam	7.5	191	9.5	0.00	1)	Atmosphere	1)	1)	Class 300/RF	Class 150/RF	A 216 WCB	SS 316	1)Capacity and sizing by FT7001B Vendor PSV-7134 is spare
106	PSV-7130	1	7000-PID-012	14"-BFW-70-151-B24-H2	14"-BFW-70-151-B24-H2	L (18.02)	BFW	1.0	122	4.5	1.00	1)	Atmosphere	1)	1)	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	1)Capacity and sizing by FT7001A
107	PSV-7131	1	7000-PID-012	14"-BFW-70-135-B24-H2	14"-BFW-70-135-B24-H2	L (18.02)	BFW	1.0	122	4.5	1.00	1)	Atmosphere	1)	1)	Class 150/RF	Class 150/RF	A 216 WCB	SS 316	1)Capacity and sizing by FT7001B

