



DIAGRAM TAG NUMBER	SIZE	ITEM DESCRIPTION	PRESSURE RATING (PSIG)	TEMPERATURE RATING
V-1, V-2, V-11, V-16, V-17, V-20	1"	OASIS BALL VALVE, 316 SS, LOW TEMP, BV-708-4N6LDDN-1000	6,000	-49° TO 100°F
V-7, V-8, V-9	1/2"	BALL VALVE	3,000	-40° TO 200°F
V-82, V-83, V-84, V-85, V-86, V-87	1/2"	BALL VALVE - OASIS	3,000	-40° TO 200°F
V-80	3/4"	BALL VALVE	2,000	-40° TO 200°F
V-17, V-18, V-19	1/4"	SWAGelok SS-43CF4 BALL VALVE	-	-40° TO 200°F
V-20, V-21, V-22	1"	BALL VALVE	3,000	-40° TO 200°F
V-23, V-24, V-25, V-26, V-27, V-28, V-29, V-30	2"	BALL VALVE, LOW TEMP, WORCESTER 44446RV SOCKET WELD R.P.	1,480	-40° TO 200°F
V.25-1, V.25-2, V.25-3, V.25-4, V.25-5, V.25-6, V.25-7, V.25-8, V-22, V-23, V-92	1/4"	NOSHOK 152-MC NEEDLE VALVF	-	-49° TO 200°F
V-38, V-39, V-40, V-41, V-42, V-43, V-44, V-45, V-46, V-47, V-48, V-49, V-50, V-51	1/2"	GUAGE TECH GTB12MFSS NEEDLE VALVE	6,000	-63° TO 200°F
V-52, V-53, V-54, V-55, V-56 V-57, V-58, V-59, V-60, V-63, V-64, V-65, V-66, V-67, V-68, V-69, V-70, V-71, V-72, V-73, V-74, V-75, V-77	1/2"	FITOK 2RSS-NS8-FNS8-H-P 6000 PSIG	6,000	-63° TO 200°F
V-14, V-15, V-21	1"	OASIS CHECK VALVE, CV308-6NXDP	6,000	-40° TO 200°F
V-81	1"	PISTON CHECK VALVE (DHV 800lb) 1,975 PSIG @ 100°F	-	-
V-82	2"	JAG MODEL 413 FNPT, 1450 PSI @ 200°F	2,000	-40° TO 200°F
S-83, S-84, S-85	1/2"	CLARK COOPER EH40-08-D024XP, 2 WAY, 1/2" NPT, 24VDC, XP	7,200	-40° TO 200°F
S-86, S-87, S-88	1/4"	ASCO 24VDC THREE-WAY VALVE EF-8320-G184	-	-40° TO 200°F
PCV-104	2"	CVS CONTROL VALVE (SET PRESSURE 1700 PSIG), PILOT REGULATOR CONTROLLER	4,500	-40° TO 200°F
PCV-108	2"	CVS CONTROL VALVE SET AT 750 PSIG	3,750	-40° TO 200°F
PCV-109, PCV-110	1"	MOONEY FLOWGRID, CL600 FLANGES ON FG-11 NPT	1,480	-
PCV-116	1/2"	FISHER 1301 REGULATOR SET AT 200 PSIG	6,000	-40° TO 200°F
PCV-117	1"	FISHER 627-453 REGULATOR, 1/4" TRIM, SET AT 80 PSIG	1,000	-40° TO 180°F
PCV-120	1/4"	FISHER FS-67CFR-362SC REGULATOR SET AT 30 PSIG	250	-20° TO 179°F
PI-102, PI-105, PI-108 PI-121, PI-122, PI-123, PI-126	1/2"	WIKA 233.53 GAUGE, LM, 0-5000 PSIG, SILCON FILL, 4" FACE	5,000	-40° TO 150°F
PI-111, PI-112, PI-119, PI-124, PI-125, PI-128	1/2"	WIKA 233.53 GAUGE, LM, 0-600 PSIG, SILCON FILL, 4" FACE	1,400	-40° TO 158°F
PI-100	1/4"	PRESSURE GUAGE, 0-100 PSI, BACK	-	-40° TO 200°F
PI-300	1/4"	PRESSURE GUAGE, 0-300 PSI, STEM	-	-40° TO 200°F
PIT-102, PIT-105, PIT-108, PIT-119, PIT-121, PIT-122, PIT-124, PIT-126	1/2"	PRESSURE TRANSMITTER	6,000	63° TO 200°F -
PLC-001, PLC-002, PLC-003, PLC-004	1"	OASIS BALL VALVE WITH AIR TORQUE ACTUATORS, BV-708-4NGLDDN-0148	6,000	-40° TO 200°F
PS-113	-	CVS 7970 HIGH-LOW PRESSURE PILOT SET AT 40 PSIG	10,000	-40° TO 240°F
PSV-106, PSV-107	2"x3"	TAYLOR 2" 900# X 3" 300#, H ORIF., PEEK SEAT, BUNA SEALS SET PRESSURE 2,000 PSIG, CAP.: 32,544 SCFM, 93S-H4124201830-00	2,250	-20° TO 200°F
PSV-108	1-1/2" x 2"	TAYLOR 1-1/2" MNPT X 2" FNPT, H ORIF., TEFLON SEAT, BUNA SEALS SET PRESSURE 900 PSIG, CAP.: 14,763 SCFM, 825H857131B-43-60-0	1,450	20° TO 200°F
PSV-115	1-1/2" x 2"	TAYLOR 1-1/2" MNPT X 2" FNPT, H ORIF., TEFLON SEAT, BUNA SEALS SET PRESSURE 300 PSIG, CAP.: 5,065 SCFM, 825H657131B-43-060-0	1,450	-20° TO 200°F
PSV-118	1"x1"	1" FNPT X 1" MNPT, E-ORIFICE, SET PRESSURE 125 PSIG, CAP.: 603 SCFM	125	-20° TO 200°F
PSV-129	1/2" x 1"	1/2" FNPT X 1" MNPT, C-ORIFICE, SET PRESSURE 250 PSIG CAP.: 336 SCFM	250	-20° TO 200°F
TIT-127	-	TEMPERATURE TRANSMITTER	6,000	-40° TO 200°F
UY-119	1/4"	ASCO 24VDC THREE-WAY VALVE EF-814-G301	-	-40° TO 200°F
UY-120	1/4"	CVS 4057 THREE-WAY VALVE	-	-40° TO 200°F
PLC-005, PLC-006, PLC-007	-	OASIS BV708-4N6LDDN-0148	-	-

DIAGRAM TAG NUMBER	SIZE	ITEM DESCRIPTION	PRESSURE RATING (PSIG)	TEMPERATURE RATING
TI-103, TI-105, TI-108, TI-127	-	WIKA TEMPERATURE GAUGE, -40 TO 70 RANGE WITH GAUGETECH 316 SS THERMOWELL	7,000	-40° TO 158°F
TS-114	-	KIMRAY HT12 TEMPERATURE SWITCH	500	-40° TO 221°F
UY-119	-	3-WAY ASCO THREE WAY VALVE	125	-40° TO 248°F
UY-120	-	3-WAY AMOT 4057	125	-40° TO 248°F
S-1	6"x36"	FUEL GAS SCRUBBER	285 @ 100°F	-
C-1, C-2, C-3	1"	DIXON CONNECTORS 8CNGF8-S, FNPT	5,000	-40° TO 248°F

SHUTDOWN SETPOINTS: PS-113: 40 PSIG TS-114: 32°F	INITIAL BMS SETPOINTS: BURNER ON TEMP.: 158°F BURNER OFF TEMP.: 176°F ALARM TEMP.: 194°F	HEATER COIL SPECIFICATIONS: DESIGN PRESS. DESIGN TEMP. CRN #: COIL 1: 5280 PSIG 400°F/-18°F - COIL 2: 3170 PSIG 400°F/-18°F - COIL 3: 3170 PSIG 400°F/-18°F -
SYSTEM DESIGN SPECIFICATIONS: DESIGN PRESS. (UPSTREAM OF PCV-104): 4500 PSIG DESIGN PRESS. (PCV-104 TO PCV-108): 2100 PSIG DESIGN TEMP.: -20°F TO 140°F DESIGN FLOW RATE: 800 SCFM DESIGN CODE: B31.3/CSA B51		LINE HEATER SPECIFICATIONS: HEAT CAPACITY: 500K BTU/HR CRN: F3086.231 YEAR BUILT: SERIAL No.:

NOTES: 1. COIL #1 IS 1" NPT, 2500#, SA-106-B, 0" C.A. 2. COILS #2 AND #3 ARE 2" NPT, SCH.80, SA-106-B, 0" C.A. 3. HIGH PRESSURE PIPING IS 2" NPT, SCH.160, A333 GRADE 6, WELDED. 4. LOW PRESSURE PIPING IS SCH.80, A333 GRADE 6, WELDED, DOWNSTREAM OF PCV-108 TO PCV-109 & 110. WELDED 2" SCH.80 DOWNSTREAM OF PCV-109 & PCV-110 TO OUTLET. 5. 1/2" TUBING IS 0.065" W.T. SS SEAMLESS TUBING, FULLY ANEALED, A213, TYPE 316. 6. 3/8" TUBING TO ALL PRESSURE GAUGES ON PANEL ARE TO BE 0.049" W.T. SS SEAMLESS TUBING, FULLY ANEALED, A213, TYPE 316. 7. ALL FLANGES TO PCV-104 ARE SA105-N 2500# ANSI RF. 8. FLANGES FOR COIL #2 AND #3 ARE SA105-N 1500# ANSI RF. 9. V-38 AND V-66 ARE NORMALLY CLOSED AND ARE ONLY OPEN DURING START UP. 10. ASCO SWITCH UY-119 IS CONNECTED SUCH THAT PCV-104 AND PCV-108 CLOSE WHEN PS-113 OR TS-114 GOES TRUE. 11. ALL TUBE FITTINGS TO BE SWAGelok OR ENGINEERING APPROVED EQUAL. 12. ENSURE VALVE M.O.P. MEETS OR EXCEEDS 5000 PSIG. 13. PSV-106 & 107 MINIMUM COMBINED CAPACITY IS 56,000 SCFM. 14. INLINE DRYER PACKAGE TO BE SUPPLIED BY OWNER. 15. PSV VENT STACKS TO BE VERTICAL AND HAVE RAIN CAPS. 16. MICROMOTION METER - SUPPLIED BY OWNER. 17. PSV-108 & 109 MINIMUM COMBINED CAPACITY IS 20,000 SCFM. 18. PSV-115 & 116 MINIMUM COMBINED CAPACITY IS 8,800 SCFM. 19. PS-113 & TS-114 MUST BE TRUE TO SUPPLY PRESSURE TO AMOT, CONNECTED IN THE 3RD CUT DISCHARGE LINE.

REV	REVISIONS	DATE (yyyy-mm-dd)	BY	CHK'D	PROJ.							
						SKIDS LPI 32001 & LPI 32002						
						REVISED BY: MAB		DATE: 05-26-2026		TITLE: LIBERTY POWER INNOVATIONS / TGT PRS UNIT 1200-A JULY 2023 PIPING AND INSTRUMENTATION DIAGRAM SHEET 2		
						CHECKED BY: RD		DATE: 05-26-2026				
						APPROVED BY:		DATE:				
						PAGE 2			DWG. NO.: TGT/LIB-1200A-PID-02		M	