

MP #	DEVICE CODE	EQUIP. CODE	ID CODE	INSTRUMENT TAG #	REFERENCE DRAWING No.	DRAWING ID #	FUNCTIONAL DESCRIPTION	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE
GF-MP-026	ESV	FTS	101	ESV-FTS-101	9517-PID-103	11	Emergency Shutoff Valve	Fisher	N550 w/ P327D	1.25	1.25	FNPT
GF-MP-017	FCV	FTS	101	FCV-FTS-101	9517-PID-103	7	Flow Control Valve (FTS Liquid Line)	Wheatley	822-023072-131	2	2	FNPT
GF-MP-017	FCV	FTS	102	FCV-FTS-102	9517-PID-103	15	Flow Control Valve (FTS Vapor Line)	Fisher	F105	1.25	1.25	FNPT
GF-MP-017	FCV	IAS	101	FCV-IAS-101	9517-PID-101	8	Flow Control Valve for (FCV-TANK1-101)	Schraeder-Bellows	SPF200B	0.125	0.125	FNPT
GF-MP-019	FCV	IAS	101	FCV-IAS-101	9517-PID-101	9	Flow Control Valve for (FCV-TANK2-101)	Schraeder-Bellows	SPF200B	0.125	0.125	FNPT
GF-MP-017	FCV	IAS	101	FCV-IAS-101	9517-PID-101	12	Flow Control Valve for (FCV-TANK1-102)	Schraeder-Bellows	SPF200B	0.125	0.125	FNPT
GF-MP-017	FCV	IAS	101	FCV-IAS-101	9517-PID-101	13	Flow Control Valve for (FCV-TANK2-102)	Schraeder-Bellows	SPF200B	0.125	0.125	FNPT
GF-MP-018	FCV	IAS	101	FCV-IAS-101	9517-PID-101	20	Flow Control Valve for (FCV-TANK1-103)	Schraeder-Bellows	SPF200B	0.125	0.125	FNPT
GF-MP-017	FCV	IAS	101	FCV-IAS-101	9517-PID-101	21	Flow Control Valve for (FCV-TANK2-103)	Schraeder-Bellows	SPF200B	0.125	0.125	FNPT
GF-MP-017	FCV	IAS	102	FCV-IAS-102	9517-PID-101	28	IAS Solenoid Valve for Tank #1	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-053	FCV	IAS	102	FCV-IAS-102	9517-PID-101	28	IAS Solenoid Valve for Tank #1	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	103	FCV-IAS-103	9517-PID-101	29	IAS Solenoid Valve for Tank #2	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-053	FCV	IAS	103	FCV-IAS-103	9517-PID-101	29	IAS Solenoid Valve for Tank #2	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-053	FCV	IAS	119	FCV-IAS-103	9517-PID-104a	1	Instrument Air Main Solenoid Valve	Parker Skinner	71315SN2MNJ1N0H111C2	0.5	0.5	FNPT
GF-MP-017	FCV	IAS	104	FCV-IAS-104	9517-PID-101	32	IAS Solenoid Valve for (FCV-NG-103)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	105	FCV-IAS-105	9517-PID-101	33	Flow Control Valve for (FCV-NG-103)	Schraeder-Bellows	SPF200B	0.125	0.125	FNPT
GF-MP-017	FCV	IAS	106	FCV-IAS-106	12023-PID-102-R03	27	IAS Solenoid Valve for (FCV-VAP-102)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	107	FCV-IAS-107	12023-PID-102-R03	28	IAS Flow Control Valve for (FCV-VAP-102)	Schraeder-Bellows	SPF200B	0.125	0.125	FNPT
GF-MP-017	FCV	IAS	108	FCV-IAS-108	9517-PID-105	7	Control Air Solenoid Valve for (FCV-MIX-121)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	109	FCV-IAS-109	9517-PID-105	9	Control Air Flow Control Valve for (FCV-MIX-101)	Schrader-Bellows	SPF400B	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	110	FCV-IAS-110	9517-PID-105	8	Control Air Solenoid Valve for (FCV-MIX-101)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	111	FCV-IAS-111	9517-PID-105	32	Control Air Solenoid Valve for (FCV-MIX-111)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	112	FCV-IAS-112	9517-PID-105	50	Control Air Flow Control Valve for (FCV-MIX-106)	Schrader-Bellows	SPF400B	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	113	FCV-IAS-113	9517-PID-105	49	Control Air Solenoid Valve for (FCV-MIX-106)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	114	FCV-IAS-114	9517-PID-105	56	Control Air Flow Control Valve for (FCV-MIX-108)	Schrader-Bellows	SPF400B	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	115	FCV-IAS-115	9517-PID-105	55	Control Air Solenoid Valve for (FCV-MIX-108)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	116	FCV-IAS-116	9517-PID-105	61	Control Air Flow Control Valve for (FCV-MIX-104)	Schrader-Bellows	SPF400B	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	117	FCV-IAS-117	9517-PID-105	59	Control Air Solenoid Valve for (FCV-MIX-104)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	118	FCV-IAS-118	9517-PID-105	5	Control Air Solenoid Valve for (FCV-MIX-121)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	119	FCV-IAS-119	9517-PID-104	1	Instrument Air Main Solenoid Valve	Parker Skinner	71315SN2MNJ1N0H111C2	0.5	0.5	FNPT
GF-MP-017	FCV	IAS	120	FCV-IAS-120	9517-PID-105	3	Control Air Solenoid Valve for (FCV-MIX-123)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	121	FCV-IAS-121	9517-PID-105	2	Control Air Flow Control Valve for (FCV-MIX-123)	Schrader-Bellows	SPF400B	0.25	0.25	FNPT

MP #	DEVICE CODE	EQUIP. CODE	ID CODE	INSTRUMENT TAG #	REFERENCE DRAWING No.	DRAWING ID #	FUNCTIONAL DESCRIPTION	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE
GF-MP-017	FCV	IAS	122	FCV-IAS-122	12023-PID-102-R03	20	IAS Solenoid Valve for (FCV-VAP-101)	Parker Skinner	71315SN2MNJ1N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	IAS	123	FCV-IAS-123	12023-PID-102-R03	21	IAS Flow Control Valve for (FCV-VAP-101)	Schraeder-Bellows	SPF200B	0.125	0.125	FNPT
GF-MP-017	FCV	MIX	101	FCV-MIX-101	9517-PID-105	17	Blender Propane Vapor Inlet Actuated Ball Valve	Kuka/Triac	CBA15BGLN/2R200SR--LT	2	2	ANSI 150#
GF-MP-053	FCV	MIX	101	FCV-MIX-101	9517-PID-105a	17	Blender Propane Vapor Inlet Actuated Ball Valve	Kuka/Triac	CBA15BGLN/2R200SR--LT	2	2	ANSI 150#
GF-MP-017	FCV	MIX	102	FCV-MIX-102	9517-PID-105	20	Blender Propane Vapor Pressure Control Valve #2	Fisher	V150 - V Ball	2	2	ANSI 150#
GF-MP-017	FCV	MIX	103	FCV-MIX-103	9517-PID-105	29	Propane Vapor Check Valve	Wheatley	510-025027-121	2	2	ANSI 150#
GF-MP-017	FCV	MIX	104	FCV-MIX-104	9517-PID-105	76	Process Air Inlet Actuated Ball Valve #1	Kuka/Triac	CBA15BGLN/2R200SR--LT	2	2	ANSI 150#
GF-MP-053	FCV	MIX	104	FCV-MIX-104	9517-PID-105b	76	Process Air Inlet Actuated Ball Valve #1	Kuka/Triac	CBA15BGLN/2R200SR--LT	2	2	ANSI 150#
GF-MP-017	FCV	MIX	106	FCV-MIX-106	9517-PID-105	77	Process Air Inlet Actuated Ball Valve # 2	Kuka/Triac	CBA15BGLN/2R200SR--LT	2	2	ANSI 150#
GF-MP-053	FCV	MIX	106	FCV-MIX-106	9517-PID-105c	77	Process Air Inlet Actuated Ball Valve # 2	Kuka/Triac	CBA15BGLN/2R200SR--LT	2	2	ANSI 150#
GF-MP-017	FCV	MIX	108	FCV-MIX-108	9517-PID-105	93	Blender Air Supply Vent Valve (Double Block - Normally Open)	Jamesbury/Triac	9FB223600XT/2R200SR--LT	1	1	FNPT
GF-MP-053	FCV	MIX	108	FCV-MIX-108	9517-PID-105c	93	Blender Air Supply Vent Valve (Double Block - Normally Open)	Jamesbury/Triac	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim	1	1	FNPT
GF-MP-017	FCV	MIX	110	FCV-MIX-110	9517-PID-105	89	Process Air Back Check Valve	Wheatley	510-025027-121	2	2	ANSI 150#
GF-MP-017	FCV	MIX	111	FCV-MIX-111	9517-PID-105	78	Process Air Pressure Control Valve	Fisher	V150 - V Ball	1.5	1.5	ANSI 150#
GF-MP-017	FCV	MIX	121	FCV-MIX-121	9517-PID-105	45	Mixed Gas Outlet AuctatedFlow Control Valve	Kuka/Triac	CBA15BGLN/2R300SR--LT	3	3	ANSI 150#
GF-MP-053	FCV	MIX	121	FCV-MIX-121	9517-PID-105b	45	Mixed Gas Outlet Actuated Flow Control Valve	Kuka/Triac	CBA15BGLN/2R300SR--LT	3	3	ANSI 150#
GF-MP-017	FCV	MIX	122	FCV-MIX-122	9517-PID-105	38	Propane Vapor from Tanks Header Check Valve	Wheatley	822-013072-131	1	1	FNPT
GF-MP-017	FCV	MIX	123	FCV-MIX-123	9517-PID-105	31	Propane Vapor from Tanks Vapor Header Ball Valve	Jamesbury	9FB3600XT	1	1	FNPT
GF-MP-053	FCV	MIX	123	FCV-MIX-123	9517-PID-105a	31	Propane Vapor from Tanks Vapor Header Ball Valve	Jamesbury	9FB3600XT	1	1	FNPT
GF-MP-017	FCV	NG	101	FCV-NG-101	9517-PID-101	35	Natural Gas Pad Check Valve #1	Wheatley	510-025027-121	2	2	ANSI 150#
GF-MP-017	FCV	NG	102	FCV-NG-102	9517-PID-101	69	Natural Gas Pad Check Valve #2	Wheatley	510-025027-121	2	2	ANSI 150#
GF-MP-017	FCV	NG	103	FCV-NG-103	9517-PID-101	38	Natural Gas Pad Actuated Ball Valve	Kuka/Triac	CBA15BGLN/2R200SR--LT	2	2	ANSI 150#
GF-MP-053	FCV	NG	103	FCV-NG-103	9517-PID-101b	38	Natural Gas Pad Actuated Ball Valve	Kuka/Triac	CBA15BGLN/2R200SR--LT	2	2	ANSI 150#
GF-MP-017	FCV	QT	101	FCV-QT-101	9517-PID-105	66	Solenoid Valve Mixed Gas to S.G. Transducer	Parker Skinner	71216SN2FU00N0H111C2	0.25	0.25	FNPT
GF-MP-017	FCV	TANK1	101	FCV-TANK1-101	9517-PID-101	14	Actuated Internal Valve - Propane Liquid Out Line, Propane Storage Tank No. 1	Rego	A3213R300 w/ A3213PA	3	3	MNPT/FNPT
GF-MP-017	FCV	TANK1	102	FCV-TANK1-102	9517-PID-101	15	Actuated Internal Valve - Propane Liquid Fill Line, Propane Storage Tank No. 1	Rego	A3212R250 w/A3213PA	2	2	MNPT/FNPT
GF-MP-017	FCV	TANK1	103	FCV-TANK1-103	9517-PID-101	16	Actuated Internal Valve - Propane Vapor Line, Propane Storage Tank No. 1	Rego	A3212R250 w/A3213PA	2	2	MNPT/FNPT
GF-MP-017	FCV	TANK2	101	FCV-TANK2-101	9517-PID-101	17	Actuated Internal Valve - Propane Liquid Out Line, Propane Storage Tank No. 2	Rego	A3213R300 w/ A3213PA	3	3	MNPT/FNPT
GF-MP-017	FCV	TANK2	102	FCV-TANK2-102	9517-PID-101	18	Actuated Internal Valve - Propane Liquid Fill Line, Propane Storage Tank No. 2	Rego	A3212R250 w/A3213PA	2	2	MNPT/FNPT
GF-MP-017	FCV	TANK2	103	FCV-TANK2-103	9517-PID-101	51	Actuated Internal Valve - Propane Vapor Line, Propane Storage Tank No. 2	Rego	A3212R250 w/A3213PA	2	2	MNPT/FNPT
GF-MP-017	FCV	VAP	101	FCV-VAP-101	12023-PID-102-R03	19	Vaporizer Discharge Actuated Ball Valve	Kuka/Triac	CBA30BGLN/2R300SR--LT	3	3	ANSI 300#
GF-MP-053	FCV	VAP	101	FCV-VAP-101	12023-PID-102-R03	19	Vaporizer Discharge Actuated Ball Valve	Kuka/Triac	CBA30BGLN/2R300SR--LT	3	3	ANSI 300#

MP #	DEVICE CODE	EQUIP. CODE	ID CODE	INSTRUMENT TAG #	REFERENCE DRAWING No.	DRAWING ID #	FUNCTIONAL DESCRIPTION	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE
GF-MP-017	FCV	VAP	102	FCV-VAP-102	12023-PID-102-R03	36	Vaporizer Discharge Actuated Ball Valve	Kuka/Triac	CBA30BGLN/2R300SR--LT	3	3	ANSI 300#
GF-MP-017	FCV	VAP	102	FCV-VAP-102	9517-PID-101	26	Propane Vapor to Blender Discharge Check Valve	Wheatley	822-013072-131	1	1	FNPT
GF-MP-053	FCV	VAP	102	FCV-VAP-102	12023-PID-102-R03	36	Vaporizer Discharge Actuated Ball Valve	Kuka/Triac	CBA30BGLN/2R300SR--LT	3	3	ANSI 300#
GF-MP-002	FT	MIX	101	FT-MIX-101	9517-PID-105	21	Blender Propane Vapor Flow Transmitter	Hoffer	HO2X2-15-CB-1MC3PAX-F1SS-X / CAT1-3/O-7-D-X	2	2	ANSI 150#
GF-MP-002	FT	MIX	102	FT-MIX-102	9517-PID-105	79	Blender Process Air Supply Flow Transmitter	Hoffer	HO2X2-15-CB-1MC3PAX-F1SS-X / CAT3-2-1-1-DC-X-2/O-x	2	2	ANSI 150#
GF-MP-032	HV	AIR	101	HV AIR 101	12023-PID-102-R03	10	Process Air Compressor Discharge Isolation Valve	Kuka	CBA15BGLN	3	3	ANSI 150#
GF-MP-032	HV	AIR	102	HV AIR 102	12023-PID-102-R03	7	Process Air Tank Drain Valve	RUB	S92EB8	1	1	FNPT
GF-MP-032	HV	AIR	103	HV AIR 103	12023-PID-102-R03	5	Process Air Tank Instrument Isolation Valve	Dragon	10M517G	0.5	0.5	MXFNPT
GF-MP-032	HV	AIR	104	HV AIR 104	12023-PID-102-R03	2	Process Air Compressor Discharge Isolation Valve	Kuka	CBA15BGLN	3	3	ANSI 150#
GF-MP-032	HV	AIR	105	HV AIR 105	12023-PID-102-R03	1	Process Air Compressor Discharge Isolation Valve	Kuka	CBA15BGLN	3	3	ANSI 150#
GF-MP-032	HV	IAS	104	HV IAS 104	12023-PID-102-R03	29	IAS Vented Ball Valve for (FCV-VAP-102)	RUB	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	IAS	118	HV IAS 118	12023-PID-102-R03	22	IAS Vented Ball Valve for (FCV-VAP-101)	RUB	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	VAP	101	HV VAP 101	12023-PID-102-R03	26	Vaporizer Inlet Isolation Ball Valve	Kuka	CBA30BGLN	2	2	ANSI 300#
GF-MP-032	HV	VAP	102	HV VAP 102	12023-PID-102-R03	16	Instrument Isolation Ball Valve	Dragon	10M517G	0.5	0.5	MNPT x FNPT
GF-MP-032	HV	VAP	103	HV VAP 103	12023-PID-102-R03	24	Vaporizer 1 Inlet Isolation Ball Valve	Titan	YS-62-CS	2	2	ANSI 300#
GF-MP-032	HV	VAP	104	HV VAP 104	12023-PID-102-R03	38	Vaporizer 2 Inlet Isolation Ball Valve	Kuka	CBA30BGLN	2	2	ANSI 300#
GF-MP-032	HV	VAP	105	HV VAP 105	12023-PID-102-R03	33	Instrument Isolation Ball Valve	Dragon	10M517G	0.5	0.5	MNPT x FNPT
GF-MP-032	HV	FTS	101	HV-FTS-101	9517-PID-103	2	Angle Valve (FTS Liquid Line)	Squib-Taylor	AL317P	2	2	FNPT
GF-MP-032	HV	FTS	102	HV-FTS-102	9517-PID-103	8	Strainer Blow Down Valve	Jamesbury	9FB3600XT	1	1	FNPT
GF-MP-032	HV	FTS	103	HV-FTS-103	9517-PID-103	3	Isolation Ball Valve (FTS Liquid Line)	Jamesbury	9FB3600XT	2	2	FNPT
GF-MP-032	HV	FTS	104	HV-FTS-104	9517-PID-103	10	Angle Valve (FTS Vapor Line)	Squibb-Taylor	AL313P	1.25	1.25	FNPT
GF-MP-032	HV	FTS	105	HV-FTS-105	9517-PID-103	12	Isolation Ball Valve (FTS Vapor Line)	Jamesbury	9FB3600XT	2	2	FNPT
GF-MP-032	HV	IAS	101	HV-IAS-101	9517-PID-101	10	Vented Ball Valve for (FCV-TANK1-101)	Apollo	7K-101-27	0.25	0.25	FNPT
GF-MP-032	HV	IAS	101	HV-IAS-101	9517-PID-101	11	Vented Ball Valve for (FCV-TANK2-101)	Apollo	7K-101-27	0.25	0.25	FNPT
GF-MP-032	HV	IAS	101	HV-IAS-101	9517-PID-101	19	Vented Ball Valve for (FCV-TANK2-102)	Apollo	7K-101-27	0.25	0.25	FNPT
GF-MP-032	HV	IAS	101	HV-IAS-101	9517-PID-101	24	Vented Ball Valve for (FCV-TANK1-103)	Apollo	7K-101-27	0.25	0.25	FNPT
GF-MP-032	HV	IAS	101	HV-IAS-101	9517-PID-101	25	Vented Ball Valve for (FCV-TANK2-103)	Apollo	7K-101-27	0.25	0.25	FNPT
GF-MP-032	HV	IAS	101	HV-IAS-101	9517-PID-101	52	Vented Ball Valve for (FCV-TANK1-102)	Apollo	7K-101-27	0.25	0.25	FNPT
GF-MP-032	HV	IAS	102	HV-IAS-102	9517-PID-101	64	Vented Ball Valve for (FCV-NG-103)	RUB	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	IAS	105	HV-IAS-105	9517-PID-103	16	Pneumatic Isolation for ESV Valve	Rub	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	IAS	108	HV-IAS-108	9517-PID-105	6	Control Air Hand Valve for (FCV-MIX-121)	Rub	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	IAS	109	HV-IAS-109	9517-PID-105	10	Control Air Hand Valve for (FCV-MIX-101)	Rub	S93B41	0.25	0.25	FNPT

MP #	DEVICE CODE	EQUIP. CODE	ID CODE	INSTRUMENT TAG #	REFERENCE DRAWING No.	DRAWING ID #	FUNCTIONAL DESCRIPTION	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE
GF-MP-032	HV	IAS	110	HV-IAS-110	9517-PID-105	33	Control Air Hand Valve for (FCV-MIX-111)	Rub	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	IAS	111	HV-IAS-111	9517-PID-105	51	Control Air Hand Valve for (FCV-MIX-106)	Rub	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	IAS	112	HV-IAS-112	9517-PID-105	54	Control Air Hand Valve for (FCV-MIX-108)	Rub	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	IAS	113	HV-IAS-113	9517-PID-105	60	Control Air Hand Valve for (FCV-MIX-104)	Rub	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	IAS	114	HV-IAS-114	9517-PID-105	4	Control Air Hand Valve for (FCV-MIX-121)	Rub	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	IAS	115	HV-IAS-115	9517-PID-104	6	Instrument Air Compressor Discharge Valve	RUB	S92DB8	0.5	0.5	FNPT
GF-MP-032	HV	IAS	116	HV-IAS-116	9517-PID-104	7	Instrument Air Isolation Ball Valve	RUB	S92DB8	0.5	0.5	FNPT
GF-MP-032	HV	IAS	117	HV-IAS-117	9517-PID-105	1	Control Air Hand Valve for (FCV-MIX-123)	Rub	S93B41	0.25	0.25	FNPT
GF-MP-032	HV	MIX	101	HV-MIX-101	9517-PID-105	12	Blender Propane Supply Blowdown Valve	Jamesbury	9FB3600XT	0.5	0.5	FNPT
GF-MP-032	HV	MIX	102	HV-MIX-102	9517-PID-105	85	Insturment Hand Valve for PT & PI-MIX-103	Dragon	10M517G	0.5	0.5	MNPT/FNPT
GF-MP-032	HV	MIX	103	HV-MIX-103	9517-PID-105	18	Blender Propane Vapor Insturment Hand Valve for PI-MIX & PT-MIX 102	Dragon	10M517G	0.5	0.5	MNPT/FNPT
GF-MP-032	HV	MIX	105	HV-MIX-105	9517-PID-105	26	Blender Air Supply Insturment Hand Valve for PI-MIX & PT-MIX-105	Dragon	10M517G	0.5	0.5	MNPT/FNPT
GF-MP-032	HV	MIX	106	HV-MIX-106	9517-PID-105	92	Blender Strainer Blowdown Valve Process Air (ST-MIX-102)	Jamesbury	9FB3600XT	0.5	0.5	FNPT
GF-MP-032	HV	MIX	108	HV-MIX-108	9517-PID-105	86	Blender Air Supply Insturment Hand Valve for PT & PI-MIX-104	Dragon	10M517G	0.5	0.5	MNPT/FNPT
GF-MP-032	HV	MIX	109	HV-MIX-109	9517-PID-105	65	Blender Air Supply Blowdown Valve	Jamesbury	9FB3600XT	0.5	0.5	FNPT
GF-MP-032	HV	MIX	110	HV-MIX-110	9517-PID-105	44	Mixer Instrument Hand Valve for PT & PI-MIX-106	Dragon	10M517G	0.5	0.5	MNPT/FNPT
GF-MP-032	HV	MIX	111	HV-MIX-111	9517-PID-105	57	Hand Valve (Mixed Gas to Densitometer)	Dragon	10M517G	0.5	0.5	MNPT/FNPT
GF-MP-032	HV	MIX	112	HV-MIX-112	9517-PID-105	47	Blender Instrument Hand Valve for PT -MIX-107	Dragon	10M517G	0.5	0.5	MNPT/FNPT
GF-MP-032	HV	MIX	119	HV-MIX-119	9517-PID-105	28	Blowdown valve for (ST MIX 101)	Jamesbury	9FB3600XT	0.5	0.5	FNPT
GF-MP-032	HV	NG	101	HV-NG-101	9517-PID-101	36	Natural Gas Pad Inlet Ball Valve	Kuka	CBA15BGLN	2	2	ANSI 150#
GF-MP-032	HV	NG	102	HV-NG-102	9517-PID-101	66	Natural Gas Pad Gauge Isolation Valve # 1	Dragon	10M517G	0.5	0.5	MNPT x FNPT
GF-MP-032	HV	NG	103	HV-NG-103	9517-PID-101	67	Natural Gas Pad Gauge Isolation Valve # 2	Dragon	10M517G	0.5	0.5	MNPT x FNPT
GF-MP-032	HV	QT	101	HV-QT-101	9517-PID-105	62	Hand Valve Test Port for Air Supply to S.G. Transducer	Jamesbury	9FB3600XT	0.25	0.25	FNPT
GF-MP-032	HV	TA	105	HV-TA-105	9517-PID-101	68	Propane Vapor Line 3-Way Ball Valve for Hydrostatic Relief Valves	Apollo	76-603	0.5	0.5	FNPT
GF-MP-032	HV	TA	106	HV-TA-106	9517-PID-101	56	Propane Vapor Line 3-Way Ball Valve for Hydrostatic Relief Valves	Apollo	76-603	0.5	0.5	FNPT
GF-MP-032	HV	TA	107	HV-TA-107	9517-PID-101	23	Propane Liquid Line 3-Way Ball Valve for Hydrostatic Relief Valves	Apollo	76-603	0.5	0.5	FNPT
GF-MP-032	HV	TANK1	101	HV-TANK1-101	9517-PID-101	61	Isolation Ball Valve - Liquid Out Line, Propane Storage Tank No. 1	Kuka	CBA30BG	3	3	ANSI 300#
GF-MP-032	HV	TANK1	102	HV-TANK1-102	9517-PID-101	62	Isolation Ball Valve - Liquid Fill Line Propane, Storage Tank No. 1	Kuka	CBA30BG	2	2	ANSI 300#
GF-MP-032	HV	TANK1	103	HV-TANK1-103	9517-PID-101	58	Isolation Ball Valve - Natural Gas Line, Propane Storage Tank No. 1	Kuka	CBA30BG	2	2	ANSI 300#
GF-MP-032	HV	TANK1	104	HV-TANK1-104	9517-PID-101	59	Isolation Ball Valve - Propane Vapor Line Propane Storage Tank No. 1	Kuka	CBA30BG	2	2	ANSI 300#
GF-MP-032	HV	TANK1	105	HV-TANK1-105	9517-PID-101	41	Instrument Isolation Valve for LI TANK1 102, Propane Storage Tank No. 1	Anderson Greenwood	H5VIS22A	0.25	0.25	MNPT x FNPT
GF-MP-032	HV	TANK1	106	HV-TANK1-106	9517-PID-101	48	Instrument Isolation Valve for PI & PT TANK1 101, Propane Storage Tank No. 1	Anderson Greenwood	H5VIS22A	0.25	0.25	MNPT x FNPT

MP #	DEVICE CODE	EQUIP. CODE	ID CODE	INSTRUMENT TAG #	REFERENCE DRAWING No.	DRAWING ID #	FUNCTIONAL DESCRIPTION	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE
GF-MP-032	HV	TANK2	101	HV-TANK2-101	9517-PID-101	57	Isolation Ball Valve - Liquid Out Line, Propane Storage Tank No. 2	Kuka	CBA30BG	3	3	ANSI 300#
GF-MP-032	HV	TANK2	102	HV-TANK2-102	9517-PID-101	63	Isolation Ball Valve - Liquid Fill Line Propane, Storage Tank No. 2	Kuka	CBA30BG	2	2	ANSI 300#
GF-MP-032	HV	TANK2	103	HV-TANK2-103	9517-PID-101	60	Isolation Ball Valve - Natural Gas Line, Propane Storage Tank No. 2	Kuka	CBA30BG	2	2	ANSI 300#
GF-MP-032	HV	TANK2	104	HV-TANK2-104	9517-PID-101	30	Isolation Ball Valve - Propane Vapor Line Propane Storage Tank No. 2	Kuka	CBA30BG	2	2	ANSI 300#
GF-MP-032	HV	TANK2	105	HV-TANK2-105	9517-PID-101	5	Combo Valve for Propane Storage Tank No. 2	Marshall Excelsior	MEJ415	0.75	0.25	MNPT x FNPT
GF-MP-032	HV	VAP	103	HV-VAP-103	9517-PID-101	31	Propane Vapor to Blender Discharge Isolation Ball Valve	Jamesbury	9FB3600XT	1	1	FNPT
GF-MP-017	I/Z	MIX	101	I/Z-MIX-101	9517-PID-105	63	Current to Position Transmitter for (FCV-MIX-111)	Fisher	DVC 6200	NA	NA	NA
GF-MP-017	I/Z	MIX	103	I/Z-MIX-103	9517-PID-105	11	Current to Position Transmitter for (FCV-MIX-102)	Fisher	DVC 6200	NA	NA	NA
	LI	TANK1	101	LI-TANK1-101	9517-PID-101	49	Level Indicator for Propane Storage Tank No. 1	Taylor	ME3862B / 5331 Adapter	2.5	NA	MNPT
	LI	TANK1	102	LI-TANK1-102	9517-PID-101	43	85% Spit Valve to be Installed on (HV-TANK1-105)	Marshall Excelsior	MEJ402S	0.25	NA	MNPT
	LI	TANK2	101	LI-TANK2-101	9517-PID-101	47	Level Indicator for Propane Storage Tank No. 2	Taylor	ME3862B / 5331 Adapter	2.5	NA	MNPT
	LI	TANK2	102	LI-TANK2-102	9517-PID-101	6	85% Spit Valve to be Installed on (HV-TANK2-105)	Marshall Excelsior	MEJ402S	0.25	NA	MNPT
	LT	TANK1	101	LT-TANK1-101	9517-PID-101	40	Liquid Level Transmitter for Propane Storage Tank No. 1	MTS	MRA2B1B11A1U110.00S	0.75	NA	MNPT
	LT	TANK2	101	LT-TANK2-101	9517-PID-101	2	Liquid Level Transmitter for Propane Storage Tank No. 2	MTS	MRA2B1B11A1U110.00S	0.75	NA	MNPT
GF-MP-032	PA	VAP	101	PA VAP 101	12023-PID-102-R03	13	Vaporizer Relief Stack Cap	Anthes Weather Cap	WC 5	2	NA	NA
GF-MP-033	PA	VAP	102	PA VAP 102	12023-PID-102-R03	14	Vaporizer Relief Valve Pipe Away Adapter	Rego	3135-10	1.25	2	NPT
GF-MP-034	PA	VAP	103	PA VAP 103	12023-PID-102-R03	30	Vaporizer Relief Stack Cap	Anthes Weather Cap	WC 5	2	NA	NA
GF-MP-035	PA	VAP	104	PA VAP 104	12023-PID-102-R03	31	Vaporizer Relief Valve Pipe Away Adapter	Rego	3135-10	1.25	2	NPT
GF-MP-049	PCV	IAS	101	PCV-IAS-101	9517-PID-104	8	Instrument Air Regulator	Control-Air	300-BC	0.25	0.25	NPT
GF-MP-049	PCV	IAS	102	PCV-IAS-102	9517-PID-104	10	Instrument Air Regulator	Control-Air	300-BC	0.25	0.25	NPT
GF-MP-049	PCV	MIX	101	PCV-MIX-101	9517-PID-105	19	Blender Propane Vapor Pressure Control Valve #1	Fisher	1098-EGR	2	2	ANSI 150#
GF-MP-049	PCV	MIX	103	PCV-MIX-103	9517-PID-105	74	Propane-Air to QT Pressure Control Valve	Swagelok	KPR1DRC412A20000	0.5	0.5	FNPT
GF-MP-049	PCV	MIX	109	PCV-MIX-109	9517-PID-105	82	Air Pressure Control Valve	Fisher	1098-EGR	2	2	ANSI 150#
GF-MP-049	PCV	NG	101	PCV-NG-101	9517-PID-101	37	Natural Gas Pad Pressure Regulator	Fisher	627	1	1	FNPT
GF-MP-049	PCV	QT	101	PCV-QT-101	9517-PID-105	72	Pressure Regulator Supply Gas to S.G. Transducer	Fisher	R622-BCF	0.25	0.25	FNPT
GF-MP-036	PE	AIR	101	PE AIR 101	12023-PID-102-R03	11	Process Air Compressor No. 1	Atlas Copco	GA110-6.9-60	NA	3	FNPT
GF-MP-038	PE	AIR	102	PE AIR 102	12023-PID-102-R03	8	Process Air Compressor	Sylvin Tank	TBD	3	3	ANSI 150#
GF-MP-037	PE	AIR	102	PE AIR 102	12023-PID-102-R03	3	Process Air Compressor No. 2	Atlas Copco	GA110-6.9-60	NA	3	FNPT
	PE	VAP	101	PE VAP 101	12023-PID-102-R03	23	Q1650V Vertical Waterbath Vaporizer 1	Algas-SDI	Q1650V	1	2	FNPT
	PE	VAP	102	PE VAP 102	12023-PID-102-R03	37	Q1650V Vertical Waterbath Vaporizer 2	Algas-SDI	Q1650V	1	2	FNPT
	PE	FTS	101	PE-FTS-101	9517-PID-103	6	FTS Bulkhead	Standby Systems	SSI Drawing	1.25	2	FNPT
	PE	FTS	101	PE-FTS-101	9517-PID-103	14	FTS Bulkhead	Standby Systems	SSI Drawing	1.25	2	FNPT

MP #	DEVICE CODE	EQUIP. CODE	ID CODE	INSTRUMENT TAG #	REFERENCE DRAWING No.	DRAWING ID #	FUNCTIONAL DESCRIPTION	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE
	PE	FTS	102	PE-FTS-102	9517-PID-103	1	Liquid Acme Fill Adapter (FTS Liquid Line)	Fisher	ME503-16, ME441F-1	2	3.25	MNPT/ACME
	PE	FTS	104	PE-FTS-104	9517-PID-103	9	Vapor Acme Fill Adapter (FTS Vapor Line)	Fisher	ME233, ME431F-1	1.25	2.25	MNPT/ACME
GF-MP-004	PE	IAS	101	PE-IAS-101	9517-PID-104	4	Instrument Air Compressor	Atlas Copco	GX2-150	NA	NA	NA
	PE	IAS	102	PE-IAS-102	9517-PID-104	5	IAS Dryer and Filter	Stylair	H12N	0.25	0.25	FNPT
	PE	MIX	101	PE-MIX-101	9517-PID-105	53	Static Mixer	Custom	59571	4	4	WELD
	PE	MIX	102	PE-MIX-102	9517-PID-105	58	Inlet Filter for QT	Balston	91S6	0.125	0.125	FNPT
	PE	QT	101	PE-QT-101	9517-PID-105	73	Specific Gravity Transducer	Yokogawa	GD402G-A-E-E/U & GD40T/EJAF3	0.375	0.25	Swagelok
GF-MP-014	PI	AIR	101	PI AIR 101	12023-PID-102-R03	4	Process Air Tank Pressure Indicator	US Gauge	1981 # 150027DM	0.5	0.5	MNPT
GF-MP-014	PI	IAS	101	PI-IAS-101	9517-PID-104	2	Instrument Air Pressure Indicator	Trerice	D83SS2502LA110	0.25	NA	FNPT
GF-MP-014	PI	IAS	102	PI-IAS-102	9517-PID-104	9	Instrument Air Pressure Indicator	Trerice	D83SS2502LA110	0.25	NA	FNPT
GF-MP-014	PI	MIX	102	PI-MIX-102	9517-PID-105	22	Blender Propane Vapor Inlet Pressure Indicator #2	US Gauge	1981 # 150027DM	0.5	NA	MNPT
GF-MP-014	PI	MIX	103	PI-MIX-103	9517-PID-105	75	Blender Air Supply Inlet Pressure Indicator #1	US Gauge	1981 # 150027DM	0.5	NA	MNPT
GF-MP-014	PI	MIX	104	PI-MIX-104	9517-PID-105	80	Blender Air Supply Inlet Pressure Indicator #2	US Gauge	1981 # 150027DM	0.5	NA	MNPT
GF-MP-014	PI	MIX	105	PI-MIX-105	9517-PID-105	23	Blender Propane Vapor Inlet Pressure Indicator #1	US Gauge	1981 # 150027DM	0.5	NA	MNPT
GF-MP-014	PI	MIX	106	PI-MIX-106	9517-PID-105	43	Mixed Gas Pressure Indicator	US Gauge	1981 # 150027DM	0.5	NA	MNPT
GF-MP-014	PI	MIX	107	PI-MIX-107	9517-PID-105	71	Propane-Air to QT Pressure Indicator	Trerice	D83SS2502LA110	0.25	NA	MNPT
GF-MP-014	PI	MIX	108	PI-MIX-108	9517-PID-105	46	Mixed Gas Pressure Indicator #2	US Gauge	1981 # 150027DM	0.5	NA	MNPT
GF-MP-014	PI	NG	101	PI-NG-101	9517-PID-101	34	Natural Gas Pad Pressure Indicator	US Gauge	1981 # 150027DM	0.5	NA	MNPT
GF-MP-014	PI	NG	102	PI-NG-102	9517-PID-101	65	Natural Gas Pad Pressure Indicator	US Gauge	1981 # 150027DM	0.5	NA	MNPT
GF-MP-014	PI	QT	101	PI-QT-101	9517-PID-105	87	Pressure Indicator to S.G. Transducer	Trerice	760B2502LT660	0.25	NA	MNPT
GF-MP-014	PI	TANK1	101	PI-TANK1-101	9517-PID-101	46	Pressure Indicator for Propane Storage Tank No. 1	Trerice	450SS4502LA140	0.25	NA	MNPT
GF-MP-014	PI	TANK2	101	PI-TANK2-101	9517-PID-101	42	Pressure Indicator for Propane Storage Tank No. 2	Trerice	450SS4502LA140	0.25	NA	MNPT
GF-MP-006	PRV	T1	1	PRV-T1-1	9517-PID-101	72	Tank 001 Primary Relief Valve #1					
GF-MP-006	PRV	T1	2	PRV-T1-2	9517-PID-101	73	Tank 001 Primary Relief Valve #2					
GF-MP-006	PRV	T1	3	PRV-T1-3	9517-PID-101	74	Tank 001 Primary Relief Valve #3					
GF-MP-006	PRV	T1	4	PRV-T1-4	9517-PID-101	75	Tank 001 Primary Relief Valve #4					
GF-MP-006	PRV	T2	1	PRV-T2-1	9517-PID-101	76	Tank 002 Primary Relief Valve #1					
GF-MP-006	PRV	T2	2	PRV-T2-2	9517-PID-101	77	Tank 002 Primary Relief Valve #2					
GF-MP-006	PRV	T2	3	PRV-T2-3	9517-PID-101	78	Tank 002 Primary Relief Valve #3					
GF-MP-006	PRV	T2	4	PRV-T2-4	9517-PID-101	79	Tank 002 Primary Relief Valve #4					
GF-MP-048	PSH	MIX	101	PSH-MIX-101	9517-PID-105	41	Mixed Gas High Pressure Switch	Solon	6PSX-1-2	0.5	NA	MNPT
GF-MP-005	PSL	IAS	101	PSL-IAS-101	9517-PID-104	3	Instrument Air Pressure Switch	Solon	2PSW-12	0.25	0.25	FNPT

PROJECT: Berkshire Gas Co.
JOB NUMBER: 9517
REF. DRAWING: 9517-PID-101

FILE DATE: 5/4/2012
REVISION DATE: 9/10/2012
PRINT DATE: 1/29/2013 10:55

The information contained in this document and/or electronic file(s) is proprietary and/or confidential property Standby Systems, Inc. and shall not be used, reproduced or disclosed to others without the express written consent of the respective owner(s). If consent for reproduction or disclosure in whole or in part is given, this notice shall be set forth on each document page and/or in each electronic reproduction so authorized.

Entry #	Drawing #	DEVICE TAG NAME			REFERENCE DRAWING No.	FUNCTIONAL DESCRIPTION	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONSTRUCTION NOTES
		DEVICE CODE	EQUIP. CODE	ID CODE								
1	8	FCV	IAS	101	9517-PID-101a	Flow Control Valve for (FCV-TANK1-101)	0.125	0.125	FNPT	Schraeder-Bellows	SPF200B	Flow Control Valve 1/8 "
2	12	FCV	IAS	101	9517-PID-101a	Flow Control Valve for (FCV-TANK1-102)	0.125	0.125	FNPT	Schraeder-Bellows	SPF200B	Flow Control Valve 1/8 "
3	20	FCV	IAS	101	9517-PID-101a	Flow Control Valve for (FCV-TANK1-103)	0.125	0.125	FNPT	Schraeder-Bellows	SPF200B	Flow Control Valve 1/8 "
4	9	FCV	IAS	101	9517-PID-101a	Flow Control Valve for (FCV-TANK2-101)	0.125	0.125	FNPT	Schraeder-Bellows	SPF200B	Flow Control Valve 1/8 "
5	13	FCV	IAS	101	9517-PID-101a	Flow Control Valve for (FCV-TANK2-102)	0.125	0.125	FNPT	Schraeder-Bellows	SPF200B	Flow Control Valve 1/8 "
6	21	FCV	IAS	101	9517-PID-101a	Flow Control Valve for (FCV-TANK2-103)	0.125	0.125	FNPT	Schraeder-Bellows	SPF200B	Flow Control Valve 1/8 "
7	28	FCV	IAS	102	9517-PID-101a	IAS Solenoid Valve for Tank #1	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1N0H111C2	3-way, SS body, 24 VDC, Class F, 10W
8	29	FCV	IAS	103	9517-PID-101a	IAS Solenoid Valve for Tank #2	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1N0H111C2	3-way, SS body, 24 VDC, Class F, 10W
9	32	FCV	IAS	104	9517-PID-101a	IAS Solenoid Valve for (FCV-NG-103)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1N0H111C2	3-way, SS body, 24 VDC, Class F, 10W
10	33	FCV	IAS	105	9517-PID-101b	Flow Control Valve for (FCV-NG-103)	0.125	0.125	FNPT	Schraeder-Bellows	SPF200B	Flow Control Valve 1/8 "
11	10	HV	IAS	101	9517-PID-101a	Vented Ball Valve for (FCV-TANK1-101)	0.25	0.25	FNPT	Apollo	7K-101-27	1/4" Brass Ball Valve w/ Drain, SS Latch Lock Lever and Nut
12	52	HV	IAS	101	9517-PID-101b	Vented Ball Valve for (FCV-TANK1-102)	0.25	0.25	FNPT	Apollo	7K-101-27	1/4" Brass Ball Valve w/ Drain, SS Latch Lock Lever and Nut
13	24	HV	IAS	101	9517-PID-101a	Vented Ball Valve for (FCV-TANK1-103)	0.25	0.25	FNPT	Apollo	7K-101-27	1/4" Brass Ball Valve w/ Drain, SS Latch Lock Lever and Nut
14	11	HV	IAS	101	9517-PID-101a	Vented Ball Valve for (FCV-TANK2-101)	0.25	0.25	FNPT	Apollo	7K-101-27	1/4" Brass Ball Valve w/ Drain, SS Latch Lock Lever and Nut
15	19	HV	IAS	101	9517-PID-101a	Vented Ball Valve for (FCV-TANK2-102)	0.25	0.25	FNPT	Apollo	7K-101-27	1/4" Brass Ball Valve w/ Drain, SS Latch Lock Lever and Nut
16	25	HV	IAS	101	9517-PID-101a	Vented Ball Valve for (FCV-TANK2-103)	0.25	0.25	FNPT	Apollo	7K-101-27	1/4" Brass Ball Valve w/ Drain, SS Latch Lock Lever and Nut
17	64	HV	IAS	102	9517-PID-101b	Vented Ball Valve for (FCV-NG-103)	0.25	0.25	FNPT	RUB	S93B41	1/4" Brass Ball Valve, Vented
18	35	FCV	NG	101	9517-PID-101b	Natural Gas Pad Check Valve #1	2	2	ANSI 150#	Wheatley	510-025027-121	Carbon Steel Flanged End Check Valve, Raised Face
19	69	FCV	NG	102	9517-PID-101b	Natural Gas Pad Check Valve #2	2	2	ANSI 150#	Wheatley	510-025027-121	Carbon Steel Flanged End Check Valve, Raised Face
20	38	FCV	NG	103	9517-PID-101b	Natural Gas Pad Actuated Ball Valve	2	2	ANSI 150#	Kuka/Triac	CBA15BGLN/2R200SR-LT	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim w/ Triac Actuator
21	36	HV	NG	101	9517-PID-101b	Natural Gas Pad Inlet Ball Valve	2	2	ANSI 150#	Kuka	CBA15BGLN	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim
22	66	HV	NG	102	9517-PID-101b	Natural Gas Pad Gauge Isolation Valve # 1	0.5	0.5	MNPT x FNPT	Dragon	10M517G	CS Body, Grafoil Packing - 6000 psig Max
23	67	HV	NG	103	9517-PID-101b	Natural Gas Pad Gauge Isolation Valve # 2	0.5	0.5	MNPT x FNPT	Dragon	10M517G	CS Body, Grafoil Packing - 6000 psig Max
24	37	PCV	NG	101	9517-PID-101b	Natural Gas Pad Pressure Regulator	1	1	FNPT	Fisher	627	Steel body, 1/4" orifice, 70-150 psig Spring Range
25	34	PI	NG	101	9517-PID-101b	Natural Gas Pad Pressure Indicator	0.5	NA	MNPT	US Gauge	1981 # 150027DM	4.5" Dial, 1/2" Lower Mount, 0-200 Psig Range
26	65	PI	NG	102	9517-PID-101b	Natural Gas Pad Pressure Indicator	0.5	NA	MNPT	US Gauge	1981 # 150027DM	4.5" Dial, 1/2" Lower Mount, 0-200 Psig Range
27	68	HV	TA	105	9517-PID-101b	Propane Vapor Line 3-Way Ball Valve for Hydrostatic Relief Valves	0.5	0.5	FNPT	Apollo	76-603	3-Way, SS Body, and Trim
28	56	HV	TA	106	9517-PID-101b	Propane Vapor Line 3-Way Ball Valve for Hydrostatic Relief Valves	0.5	0.5	FNPT	Apollo	76-603	3-Way, SS Body, and Trim
29	23	HV	TA	107	9517-PID-101a	Propane Liquid Line 3-Way Ball Valve for Hydrostatic Relief Valves	0.5	0.5	FNPT	Apollo	76-603	3-Way, SS Body, and Trim
30	71	PSV	TA	101	9517-PID-101b	Natural Gas Hydrostatic Relief Valve # 1	0.5	0.5	MNPT	Rego	3129U w/ 3129-10	450 Psig Hydrostatic Relief Valve w 3129-10 Pipe Away
31	70	PSV	TA	102	9517-PID-101b	Natural Gas Hydrostatic Relief Valve # 2	0.5	0.5	MNPT	Rego	3129U w/ 3129-10	450 Psig Hydrostatic Relief Valve w 3129-10 Pipe Away
32	27	PSV	TA	103	9517-PID-101a	Propane Vapor Line Hydrostatic Relief Valve # 1	0.5	0.5	MNPT	Rego	3129U w/ 3129-10	450 Psig Hydrostatic Relief Valve w 3129-10 Pipe Away
33	55	PSV	TA	104	9517-PID-101b	Propane Vapor Line Hydrostatic Relief Valve # 2	0.5	0.5	MNPT	Rego	3129U w/ 3129-10	450 Psig Hydrostatic Relief Valve w 3129-10 Pipe Away
34	54	PSV	TA	105	9517-PID-101b	Propane Liquid Line Hydrostatic Relief Valve # 1	0.5	0.5	MNPT	Rego	3129U w/ 3129-10	450 Psig Hydrostatic Relief Valve w 3129-10 Pipe Away
35	53	PSV	TA	106	9517-PID-101b	Propane Liquid Line Hydrostatic Relief Valve # 2	0.5	0.5	MNPT	Rego	3129U w/ 3129-10	450 Psig Hydrostatic Relief Valve w 3129-10 Pipe Away
36	14	FCV	TANK1	101	9517-PID-101a	Actuated Internal Valve - Propane Liquid Out Line, Propane Storage Tank No. 1	3	3	MNPT/FNPT	Rego	A3213R300 w/ A3213PA	~300 GPM Liquid Propane Close Rate, NPT Internal Valve w/ Actuator
37	15	FCV	TANK1	102	9517-PID-101a	Actuated Internal Valve - Propane Liquid Fill Line, Propane Storage Tank No. 1	2	2	MNPT/FNPT	Rego	A3212R250 w/A3213PA	~250 GPM Liquid Propane Close Rate, NPT Internal Valve w/ Actuator
38	16	FCV	TANK1	103	9517-PID-101a	Actuated Internal Valve - Propane Vapor Line, Propane Storage Tank No. 1	2	2	MNPT/FNPT	Rego	A3212R250 w/A3213PA	~250 GPM Liquid Propane Close Rate, NPT Internal Valve w/ Actuator
39	61	HV	TANK1	101	9517-PID-101b	Isolation Ball Valve - Liquid Out Line, Propane Storage Tank No. 1	3	3	ANSI 300#	Kuka	CBA30BG	Full Port Fire Rated Carbon Steel Body, Stainless Steel Trim
40	62	HV	TANK1	102	9517-PID-101b	Isolation Ball Valve - Liquid Fill Line Propane, Storage Tank No. 1	2	2	ANSI 300#	Kuka	CBA30BG	Full Port Fire Rated Carbon Steel Body, Stainless Steel Trim
41	58	HV	TANK1	103	9517-PID-101b	Isolation Ball Valve - Natural Gas Line, Propane Storage Tank No. 1	2	2	ANSI 300#	Kuka	CBA30BG	Full Port Fire Rated Carbon Steel Body, Stainless Steel Trim
42	59	HV	TANK1	104	9517-PID-101b	Isolation Ball Valve - Propane Vapor Line Propane Storage Tank No. 1	2	2	ANSI 300#	Kuka	CBA30BG	Full Port Fire Rated Carbon Steel Body, Stainless Steel Trim
43	41	HV	TANK1	105	9517-PID-101b	Instrument Isolation Valve for LI TANK1 102, Propane Storage Tank No. 1	0.25	0.25	MNPT x FNPT	Anderson Greenwood	H5VIS22A	1/4" SS Angle Needle Valve, w/ T Handle
44	48	HV	TANK1	106	9517-PID-101b	Instrument Isolation Valve for PI & PT TANK1 101, Propane Storage Tank No. 1	0.25	0.25	MNPT x FNPT	Anderson Greenwood	H5VIS22A	1/4" SS Angle Needle Valve, w/ T Handle
45	49	LI	TANK1	101	9517-PID-101b	Level Indicator for Propane Storage Tank No. 1	2.5	NA	MNPT	Taylor	ME3862B / 5331 Adapter	11" Diameter Tank Master LP End Mount, 8" Dial
46	43	LI	TANK1	102	9517-PID-101b	85% Spit Valve to be Installed on (HV-TANK1-105)	0.25	NA	MNPT	Marshall Excelsior	MEJ402S	85% Bleeder to be installed on H5VIS22A
47	40	LT	TANK1	101	9517-PID-101b	Liquid Level Transmitter for Propane Storage Tank No. 1	0.75	NA	MNPT	MTS	MRA2B1B11A1U110.00S	110" Order Length, 3/4" MNPT, Calibrated 4" to 108.25", -30 to 150 F
48	46	PI	TANK1	101	9517-PID-101b	Pressure Indicator for Propane Storage Tank No. 1	0.25	NA	MNPT	Tertrice	450SS4502LA140	4.5" Dial, 1/4" LM Connection, 0-300 Psig Range, SS
49	44	PT	TANK1	101	9517-PID-101b	Pressure Indicating Transmitter for Propane Storage Tank No. 1	0.5	NA	MNPT	Wika	E-10 # 4365182	0-300 Psig Scale, Explosion Proof, Wire End
50	50	TI	TANK1	101	9517-PID-101b	Temperature Indicator for Tank No. 1	0.5	NA	MNPT	TeI-Tru	GT-300R	-40 to 160 Deg F, 6" Stem
51	39	TT	TANK1	101	9517-PID-101b	Temperature Transmitter for Tank No. 1	NA	NA	NA	MTS	Part of LT-T1-101	Internal Temp Transmitter (see LT-T1-101)
52	3	TW	TANK1	101	9517-PID-101a	Thermowell Included (LT-TANK1-101)	0.75	0.75	MNPT x FNPT	MTS	Part of LT-T1-101	Thermowell (see LT-T1-101)
53	17	FCV	TANK2	101	9517-PID-101a	Actuated Internal Valve - Propane Liquid Out Line, Propane Storage Tank No. 2	3	3	MNPT/FNPT	Rego	A3213R300 w/ A3213PA	~300 GPM Liquid Propane Close Rate, NPT Internal Valve w/ Actuator
54	18	FCV	TANK2	102	9517-PID-101a	Actuated Internal Valve - Propane Liquid Fill Line, Propane Storage Tank No. 2	2	2	MNPT/FNPT	Rego	A3212R250 w/A3213PA	~250 GPM Liquid Propane Close Rate, NPT Internal Valve w/ Actuator
55	51	FCV	TANK2	103	9517-PID-101b	Actuated Internal Valve - Propane Vapor Line, Propane Storage Tank No. 2	2	2	MNPT/FNPT	Rego	A3212R250 w/A3213PA	~250 GPM Liquid Propane Close Rate, NPT Internal Valve w/ Actuator
56	57	HV	TANK2	101	9517-PID-101b	Isolation Ball Valve - Liquid Out Line, Propane Storage Tank No. 2	3	3	ANSI 300#	Kuka	CBA30BG	Full Port Fire Rated Carbon Steel Body, Stainless Steel Trim
57	63	HV	TANK2	102	9517-PID-101b	Isolation Ball Valve - Liquid Fill Line Propane, Storage Tank No. 2	2	2	ANSI 300#	Kuka	CBA30BG	Full Port Fire Rated Carbon Steel Body, Stainless Steel Trim
58	60	HV	TANK2	103	9517-PID-101b	Isolation Ball Valve - Natural Gas Line, Propane Storage Tank No. 2	2	2	ANSI 300#	Kuka	CBA30BG	Full Port Fire Rated Carbon Steel Body, Stainless Steel Trim
59	30	HV	TANK2	104	9517-PID-101a	Isolation Ball Valve - Propane Vapor Line Propane Storage Tank No. 2	2	2	ANSI 300#	Kuka	CBA30BG	Full Port Fire Rated Carbon Steel Body, Stainless Steel Trim
60	5	HV	TANK2	105	9517-PID-101a	Combo Valve for Propane Storage Tank No. 2	0.75	0.25	MNPT x FNPT	Marshall Excelsior	MEJ415	Combo Valve for 85% Bleed Valve, Pressure Gauge
61	47	LI	TANK2	101	9517-PID-101b	Level Indicator for Propane Storage Tank No. 2	2.5	NA	MNPT	Taylor	ME3862B / 5331 Adapter	11" Diameter Tank Master LP End Mount, 8" Dial
62	6	LI	TANK2	102	9517-PID-101a	85% Spit Valve to be Installed on (HV-TANK2-105)	0.25	NA	MNPT	Marshall Excelsior	MEJ402S	85% Bleeder to be installed on MEJ415
63	2	LT	TANK2	101	9517-PID-101a	Liquid Level Transmitter for Propane Storage Tank No. 2	0.75	NA	MNPT	MTS	MRA2B1B11A1U110.00S	110" Order Length, 3/4" MNPT, Calibrated 4" to 108.25", -30 to 150 F

Internal Use

64	42	PI	TANK2	101	9517-PID-101b	Pressure Indicator for Propane Storage Tank No. 2	0.25	NA	MNPT	Trerice	450SS4502LA140	4.5" Dial, 1/4" LM Connection, 0-300 Psig Range, SS
65	45	PT	TANK2	101	9517-PID-101b	Pressure Indicating Transmitter for Propane Storage Tank No.2	0.5	NA	MNPT	Wika	E-10 # 4365182	0-300 Psig Scale, Explosion Proof, Wire End
66	7	TI	TANK2	101	9517-PID-101a	Temperature Indicator for Tank No. 2	0.5	NA	MNPT	Tel-Tru	GT-300R	-40 to 160 Deg F, 6" Stem
67	1	TT	TANK2	101	9517-PID-101a	Temperature Transmitter for Tank No. 2	NA	NA	NA	MTS	Part of LT-T2-101	Internal Temp Transmitter (see LT-TI-101)
68	4	TW	TANK2	101	9517-PID-101a	Thermowell Included (LT-TANK2-101)	0.75	0.75	MNPT x FNPT	MTS	Part of LT-T2-101	Thermowell (see LT-TI-101)
69	26	FCV	VAP	102	9517-PID-101a	Propane Vapor to Blender Discharge Check Valve	1	1	FNPT	Wheatley	822-013072-131	CS Body, SS Clapper, 720# Working Pressure
70	31	HV	VAP	103	9517-PID-101a	Propane Vapor to Blender Discharge Isolation Ball Valve	1	1	FNPT	Jamesbury	9FB3600XT	Stainless Steel Body and Trim, Fire Safe
71	22	PSV	VAP	101	9517-PID-101a	Propane Vapor to Blender Hydrostatic Relief Valve	0.5	0.5	MNPT	Rego	3129U w/ 3129-10	450 Psig Hydrostatic Relief Valve w 3129-10 Pipe Away
72		PRV	T1	1	9517-PID-101a	Tank 001 Primary Relief Valve #1						
73		PRV	T1	2	9517-PID-101a	Tank 001 Primary Relief Valve #2						
74		PRV	T1	3	9517-PID-101a	Tank 001 Primary Relief Valve #3						
75		PRV	T1	4	9517-PID-101a	Tank 001 Primary Relief Valve #4						
76		PRV	T2	1	9517-PID-101a	Tank 002 Primary Relief Valve #1						
77		PRV	T2	2	9517-PID-101a	Tank 002 Primary Relief Valve #2						
78		PRV	T2	3	9517-PID-101a	Tank 002 Primary Relief Valve #3						
79		PRV	T2	4	9517-PID-101a	Tank 002 Primary Relief Valve #4						

PROJECT: Berkshire Gas Co.
JOB NUMBER: 12023
REF. DRAWING: 12023-PID-103-R3

FILE DATE: 5/7/2012
REVISION DATE: 7/13/18
PRINT DATE: 5/31/19

The information contained in this document and/or electronic file(s) is proprietary and/or confidential property Standby Systems, Inc. and shall not be used, reproduced or disclosed to others without the express written consent of the respective owner(s). If consent for reproduction or disclosure in whole or in part is given, this notice shall be set forth on each document page and/or in each electronic reproduction so authorized.

Drawin g #	DEVICE TAG NAME			REFERENCE DRAWING No.	FUNCTIONAL DESCRIPTION	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONSTRUCTION NOTES
	DEVICE CODE	EQUIP. CODE	ID CODE								
1	HV	AIR	105	12023-PID-102-R03	Process Air Compressor Discharge Isolation Valve	3	3	ANSI 150#	Kuka	CBA15BGLN	Carbon Steel Body, SS Trim, Fire Safe, Full Port
2	HV	AIR	104	12023-PID-102-R03	Process Air Compressor Discharge Isolation Valve	3	3	ANSI 150#	Kuka	CBA15BGLN	Carbon Steel Body, SS Trim, Fire Safe, Full Port
3	PE	AIR	101	12023-PID-102-R03	Process Air Compressor No. 2	NA	3	FNPT	Atlas Copco	GA110-6.9-60	Oil Injected 150 HP Rotary Screw, 747 SCFM @ 90 psig Capacity
4	PI	AIR	101	12023-PID-102-R03	Process Air Tank Pressure Indicator	0.5	0.5	MNPT	US Gauge	1981 # 150027DM	4.5" Dial, 1/2" Lower Mount, Dry, 0-200 Psig Range
5	HV	AIR	103	12023-PID-102-R03	Process Air Tank Instrument Isolation Valve	0.5	0.5	MXFNPT	Dragon	10M517G	CS Bar Stock Body - 6000 psig Max
6	PSV	AIR	101	12023-PID-102-R03	Process Air Tank Relief Valve	1"	1/2"	MNPT x FNPT	Kunkle	6283FEV01	978 SCFM Capacity, up to 406 Deg F, 150 Psig Setting
7	HV	AIR	102	12023-PID-102-R03	Process Air Tank Drain Valve	1	1	FNPT	RUB	S92EB8	1" Non-Vented Brass Ball Valve
8	PE	AIR	102	12023-PID-102-R03	Process Air Compressor	3	3	ANSI 150#	Sylvin Tank	TBD	620 Gallon, 3" 150# Flange Connection, ASME
9	TT	AIR	102	12023-PID-102-R03	Process Air Tank No.2	1	2	FNPT	Algas-SDI	Q1650V	1650 GPH Liquid Propane Vaporizer
10	HV	AIR	101	12023-PID-102-R03	Process Air Compressor Discharge Isolation Valve	3	3	ANSI 150#	Kuka	CBA15BGLN	Carbon Steel Body, SS Trim, Fire Safe, Full Port
11	PE	AIR	101	12023-PID-102-R03	Process Air Compressor No. 1	NA	3	FNPT	Atlas Copco	GA110-6.9-60	Oil Injected 150 HP Rotary Screw, 747 SCFM @ 90 psig Capacity
12	TT	AIR	101	12023-PID-102-R03	Process Air Tank No.1					GA110-6.9-60	480 VAC 150 HP
13	PA	VAP	101	12023-PID-102-R03	Vaporizer Relief Stack Cap	2	NA	NA	Anhies Weather Cap	WC 5	Weather Cap
14	PA	VAP	102	12023-PID-102-R03	Vaporizer Relief Valve Pipe Away Adapter	1.25	2	NPT	Rego	3135-10	Relief Valve Pipe Away Adapter
15	PT	VAP	101	12023-PID-102-R03	Vaporizer Outlet Pressure Transmitter	0.5	NA	FNPT	Wika	E-10 # 4365182	0-300 Psig Scale, Explosion Proof
16	HV	VAP	102	12023-PID-102-R03	Instrument Isolation Ball Valve	0.5	0.5	MNPT x FNPT	Dragon	10M517G	CS Bar Stock Body - 6000 psig Max
17	RTD	VAP	101	12023-PID-102-R03	Vaporizer Outlet Resistive Temperature Device	0.5	NA	FNPT	Pyromation	R1T185L483-S4C0409-SL-8HN71	3 Wire, Element, 100 Ohm Platinum, XP Connection Head
18	TW	VAP	101	12023-PID-102-R03	Vaporizer Outlet Thermowell for Temperature Transmitter	0.5	NA	FNPT	Pyromation	Part of RTD- VAP-101	1/2" Connection, 2.5' Insertion Length
19	FCV	VAP	101	12023-PID-102-R03	Vaporizer Discharge Actuated Ball Valve	3	3	ANSI 300#	Kuka/Triac	CBA30BGLN/2R300SR-LT	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim w/ Triac Actuator
20	FCV	IAS	122	12023-PID-102-R03	IAS Solenoid Valve for (FCV-VAP-101)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNU1N0H111C2	3-way, SS body, 24 VDC, Class F, 10W
21	FCV	IAS	123	12023-PID-102-R03	IAS Flow Control Valve for (FCV-VAP-101)	0.125	0.125	FNPT	Schraeder-Bellows	SPF200B	Flow Control Valve 1/8 "
22	HV	IAS	118	12023-PID-102-R03	IAS Vented Ball Valve for (FCV-VAP-101)	0.25	0.25	FNPT	RUB	S93B41	1/4" Brass Ball Valve, Vented
23	PE	VAP	101	12023-PID-102-R03	Q1650V Vertical Waterbath Vaporizer 1	1	2	FNPT	Algas-SDI	Q1650V	1650 GPH Liquid Propane Vaporizer
24	HV	VAP	103	12023-PID-102-R03	Vaporizer 1 Inlet Isolation Ball Valve	2	2	ANSI 300#	Titan	YS-62-CS	Carbon Steel Body, SS 40 Mesh Strainer
25	ST	VAP	101	12023-PID-102-R03	Vaporizer Inlet Strainer	2	2	ANSI 300#	Titan	YS-62-CS	Carbon Steel Body, SS 40 Mesh Strainer
26	HV	VAP	101	12023-PID-102-R03	Vaporizer Inlet Isolation Ball Valve	2	2	ANSI 300#	Kuka	CBA30BGLN	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim
27	FCV	IAS	106	12023-PID-102-R03	IAS Solenoid Valve for (FCV-VAP-102)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNU1N0H111C2	3-way, SS body, 24 VDC, Class F, 10W
28	FCV	IAS	107	12023-PID-102-R03	IAS Flow Control Valve for (FCV-VAP-102)	0.125	0.125	FNPT	Schraeder-Bellows	SPF200B	Flow Control Valve 1/8 "
29	HV	IAS	104	12023-PID-102-R03	IAS Vented Ball Valve for (FCV-VAP-102)	0.25	0.25	FNPT	RUB	S93B41	1/4" Brass Ball Valve, Vented
30	PA	VAP	103	12023-PID-102-R03	Vaporizer Relief Stack Cap	2	NA	NA	Anhies Weather Cap	WC 5	Weather Cap
31	PA	VAP	104	12023-PID-102-R03	Vaporizer Relief Valve Pipe Away Adapter	1.25	2	NPT	Rego	3135-10	Relief Valve Pipe Away Adapter
32	PT	VAP	102	12023-PID-102-R03	Vaporizer Outlet Pressure Transmitter	0.5	NA	FNPT	Wika	E-10 # 4365182	0-300 Psig Scale, Explosion Proof
33	HV	VAP	105	12023-PID-102-R03	Instrument Isolation Ball Valve	0.5	0.5	MNPT x FNPT	Dragon	10M517G	CS Bar Stock Body - 6000 psig Max
34	RTD	VAP	102	12023-PID-102-R03	Vaporizer Outlet Resistive Temperature Device	0.5	NA	FNPT	Pyromation	R1T185L483-S4C0409-SL-8HN71	3 Wire, Element, 100 Ohm Platinum, XP Connection Head
35	TW	VAP	102	12023-PID-102-R03	Vaporizer Outlet Thermowell for Temperature Transmitter	0.5	NA	FNPT	Pyromation	Part of RTD- VAP-101	1/2" Connection, 2.5' Insertion Length
36	FCV	VAP	102	12023-PID-102-R03	Vaporizer Discharge Actuated Ball Valve	3	3	ANSI 300#	Kuka/Triac	CBA30BGLN/2R300SR-LT	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim w/ Triac Actuator
37	PE	VAP	102	12023-PID-102-R03	Q1650V Vertical Waterbath Vaporizer 2	1	2	FNPT	Algas-SDI	Q1650V	1650 GPH Liquid Propane Vaporizer
38	HV	VAP	104	12023-PID-102-R03	Vaporizer 2 Inlet Isolation Ball Valve	2	2	ANSI 300#	Kuka	CBA30BGLN	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim
39	PSV	VAP	101	12023-PID-102-R03	Vaporizer Inlet Pressure Relief Valve	1	2	FNPT	Algas-SDI	Q1650V	1650 GPH Liquid Propane Vaporizer

PROJECT: Berkshire Gas Co.
 JOB NUMBER: 9517
 REF. DRAWING: 9517-PID-103

FILE DATE: 5/7/2012
 REVISION DATE: 7/23/2012
 PRINT DATE: 1/29/2013 10:56

The information contained in this document and/or electronic file(s) is proprietary and/or confidential property Standby Systems, Inc. and shall not be used, reproduced or disclosed to others without the express written consent of the respective owner(s). If consent for reproduction or disclosure in whole or in part is given, this notice shall be set forth on each document page and/or in each electronic reproduction so authorized.

Drawing #	DEVICE TAG NAME			REFERENCE DRAWING No.	FUNCTIONAL DESCRIPTION	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONSTRUCTION NOTES
	DEVICE CODE	EQUIP. CODE	ID CODE								
11	ESV	FTS	101	9517-PID-103a	Emergency Shutoff Valve	1.25	1.25	FNPT	Fisher	N550 w/ P327D	Emergency Shutoff Valve w/ Pneumatic Release
7	FCV	FTS	101	9517-PID-103a	Flow Control Valve (FTS Liquid Line)	2	2	FNPT	Wheatley	822-023072-131	Check Valve - Carbon Steel Body/ SS Clapper
15	FCV	FTS	102	9517-PID-103a	Flow Control Valve (FTS Vapor Line)	1.25	1.25	FNPT	Fisher	F105	Excess Flow Valve
2	HV	FTS	101	9517-PID-103a	Angle Valve (FTS Liquid Line)	2	2	FNPT	Squib-Taylor	AL317P	2" Angle Style Globe Valve
8	HV	FTS	102	9517-PID-103a	Strainer Blow Down Valve	1	1	FNPT	Jamesbury	9FB3600XT	Fire Safe, Stainless Steel Body, Stainless Steel Trim
3	HV	FTS	103	9517-PID-103a	Isolation Ball Valve (FTS Liquid Line)	2	2	FNPT	Jamesbury	9FB3600XT	Fire, Safe, Stainless Steel Body, Stainless Steel Trim
10	HV	FTS	104	9517-PID-103a	Angle Valve (FTS Vapor Line)	1.25	1.25	FNPT	Squibb-Taylor	AL313P	1.25" Angle Style Globe Valve
12	HV	FTS	105	9517-PID-103a	Isolation Ball Valve (FTS Vapor Line)	2	2	FNPT	Jamesbury	9FB3600XT	Fire Safe, Stainless Steel Body, Stainless Steel Trim
14	PE	FTS	101	9517-PID-103a	FTS Bulkhead	1.25	2	FNPT	Standby Systems	SSI Drawing	Engineered Breakaway Risers
1	PE	FTS	102	9517-PID-103a	Liquid Acme Fill Adapter (FTS Liquid Line)	2	3.25	MNPT/ACME	Fisher	ME503-16, ME441F-1	3-1/4" Acme X 2" NPT Acme Adapter/ Cap & Chain
9	PE	FTS	104	9517-PID-103a	Vapor Acme Fill Adapter (FTS Vapor Line)	1.25	2.25	MNPT/ACME	Fisher	ME233, ME431F-1	2-1/4" Acme X 1 1/4" NPT Acme Adapter/ Cap & Chain
4	PSV	FTS	101	9517-PID-103a	Hydrostatic Relief Valve (FTS Liquid Line)	0.25	NA	MNPT	Rego	3125L	400 Psig Hydrostatic Relief Valve
13	PSV	FTS	103	9517-PID-103a	Hydrostatic Relief Valve (FTS Vapor Line)	0.25	NA	MNPT	Rego	3125L	400 Psig Hydrostatic Relief Valve
5	ST	FTS	101	9517-PID-103a	Strainer for (Liquid Fill Line)	2	2	FNPT	Titan	YS-81 CS	Carbon Steel Body w/ 40Mesh Screen
16	HV	IAS	105	9517-PID-103a	Pneumatic Isolation for ESV Valve	0.25	0.25	FNPT	Rub	S93B41	1/4" Brass Ball Valve, Vented
6	PE	FTS	101	9517-PID-103a	FTS Bulkhead	1.25	2	FNPT	Standby Systems	SSI Drawing	Engineered Breakaway Risers

PROJECT: Berkshire Gas Co.
JOB NUMBER: 9517
REF. DRAWING: 9517-PID-104

FILE DATE: 7/25/2012
REVISION DATE: 8/9/2012
PRINT DATE: 1/29/2013 10:57

The information contained in this document and/or electronic file(s) is proprietary and/or confidential property Standby Systems, Inc. and shall not be used, reproduced or disclosed to others without the express written consent of the respective owner(s). If consent for reproduction or disclosure in whole or in part is given, this notice shall be set forth on each document page and/or in each electronic reproduction so authorized.

Drawing #	DEVICE TAG NAME			REFERENCE DRAWING No.	FUNCTIONAL DESCRIPTION	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONSTRUCTION NOTES
	DEVICE CODE	EQUIP. CODE	ID CODE								
1	FCV	IAS	119	9517-PID-104a	Instrument Air Main Solenoid Valve	0.5	0.5	FNPT	Parker Skinner	71315SN2MNJ1NOH111C2	3-way, SS body, 24 VDC, Class F, 10W
6	HV	IAS	115	9517-PID-104a	Instrument Air Compressor Discharge Valve	0.5	0.5	FNPT	RUB	S92DB8	Non-Vented 1/2" Brass Ball Valve
7	HV	IAS	116	9517-PID-104a	Instrument Air Isolation Ball Valve	0.5	0.5	FNPT	RUB	S92DB8	Non-Vented 1/2" Brass Ball Valve
8	PCV	IAS	101	9517-PID-104a	Instrument Air Regulator	0.25	0.25	NPT	Control-Air	300-BC	Pressure Regulator, Set 70-80 psig
10	PCV	IAS	102	9517-PID-104a	Instrument Air Regulator	0.25	0.25	NPT	Control-Air	300-BC	Pressure Regulator, Set 30-35 psig
4	PE	IAS	101	9517-PID-104a	Instrument Air Compressor	NA	NA	NA	Atlas Copco	GX2-150	3 HP, 480 VAC 3 phase, 60HZ, capable of 8.5 SCFM, Tank Mounted w/ disconnect switch
5	PE	IAS	102	9517-PID-104a	IAS Dryer and Filter	0.25	0.25	FNPT	Stylair	H12N	10 SCFM Capacity, -40 Deg. Dew Point, Pre and After Filters
2	PI	IAS	101	9517-PID-104a	Instrument Air Pressure Indicator	0.25	NA	FNPT	Trerice	D83SS2502LA110	1/4" LM, 2.5" Dial, SS Case, 0-100 Psig Range
9	PI	IAS	102	9517-PID-104a	Instrument Air Pressure Indicator	0.25	NA	FNPT	Trerice	D83SS2502LA110	1/4" LM, 2.5" Dial, SS Case, 0-100 Psig Range
3	PSL	IAS	101	9517-PID-104a	Instrument Air Pressure Switch	0.25	0.25	FNPT	Solon	2PSW-12	0-100 Psig Range, Enclosure

PROJECT: Berkshire Gas Co.
JOB NUMBER: 9517
REF. DRAWING: 9517-PID-105

FILE DATE: 5/4/2012
REVISION DATE: 9/10/2012
PRINT DATE: 1/29/2013 10:55

The information contained in this document and/or electronic file(s) is proprietary and/or confidential property Standby Systems, Inc. and shall not be used, reproduced or disclosed to others without the express written consent of the respective owner(s). If consent for reproduction or disclosure in whole or in part is given, this notice shall be set forth on each document page and/or in each electronic reproduction so authorized.

Drawing #	DEVICE TAG NAME			REFERENCE DRAWING No.	FUNCTIONAL DESCRIPTION	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONSTRUCTION NOTES
	DEVICE CODE	EQUIP. CODE	ID CODE								
7	FCV	IAS	108	9517-PID-105a	Control Air Solenoid Valve for (FCV-MIX-121)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1NOH111C2	3-way, SS body, 24 VDC, Class F, 10W
9	FCV	IAS	109	9517-PID-105a	Control Air Flow Control Valve for (FCV-MIX-101)	0.25	0.25	FNPT	Schrader-Bellows	SPF400B	Flow Control Valve 1/4" FNPT
8	FCV	IAS	110	9517-PID-105a	Control Air Solenoid Valve for (FCV-MIX-101)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1NOH111C2	3-way, SS body, 24 VDC, Class F, 10W
32	FCV	IAS	111	9517-PID-105a	Control Air Solenoid Valve for (FCV-MIX-111)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1NOH111C2	3-way, SS body, 24 VDC, Class F, 10W
50	FCV	IAS	112	9517-PID-105b	Control Air Flow Control Valve for (FCV-MIX-106)	0.25	0.25	FNPT	Schrader-Bellows	SPF400B	Flow Control Valve 1/4" FNPT
49	FCV	IAS	113	9517-PID-105b	Control Air Solenoid Valve for (FCV-MIX-106)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1NOH111C2	3-way, SS body, 24 VDC, Class F, 10W
56	FCV	IAS	114	9517-PID-105b	Control Air Flow Control Valve for (FCV-MIX-108)	0.25	0.25	FNPT	Schrader-Bellows	SPF400B	Flow Control Valve 1/4" FNPT
55	FCV	IAS	115	9517-PID-105b	Control Air Solenoid Valve for (FCV-MIX-108)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1NOH111C2	3-way, SS body, 24 VDC, Class F, 10W
61	FCV	IAS	116	9517-PID-105b	Control Air Flow Control Valve for (FCV-MIX-104)	0.25	0.25	FNPT	Schrader-Bellows	SPF400B	Flow Control Valve 1/4" FNPT
59	FCV	IAS	117	9517-PID-105b	Control Air Solenoid Valve for (FCV-MIX-104)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1NOH111C2	3-way, SS body, 24 VDC, Class F, 10W
5	FCV	IAS	118	9517-PID-105a	Control Air Solenoid Valve for (FCV-MIX-121)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1NOH111C2	3-way, SS body, 24 VDC, Class F, 10W
3	FCV	IAS	120	9517-PID-105a	Control Air Solenoid Valve for (FCV-MIX-123)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1NOH111C2	3-way, SS body, 24 VDC, Class F, 10W
2	FCV	IAS	121	9517-PID-105a	Control Air Flow Control Valve for (FCV-MIX-123)	0.25	0.25	FNPT	Schrader-Bellows	SPF400B	Flow Control Valve 1/4" FNPT
17	FCV	MIX	101	9517-PID-105a	Blender Propane Vapor Inlet Actuated Ball Valve	2	2	ANSI 150#	Kuka/Triac	CBA15BGLN/2R200SR-LT	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim w/ Triac Actuator
20	FCV	MIX	102	9517-PID-105a	Blender Propane Vapor Pressure Control Valve #2	2	2	ANSI 150#	Fisher	V150 - V Ball	V150 W/Type 2052 Size 1 Diaphragm FO Actuator, DVC6200 Positioner, 4200 Position Transmitter
29	FCV	MIX	103	9517-PID-105a	Propane Vapor Check Valve	2	2	ANSI 150#	Wheatley	510-025027-121	Carbon Steel Flanged End Check Valve, Raised Face
76	FCV	MIX	104	9517-PID-105b	Process Air Inlet Actuated Ball Valve #1	2	2	ANSI 150#	Kuka/Triac	CBA15BGLN/2R200SR-LT	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim w/ Triac Actuator
77	FCV	MIX	106	9517-PID-105c	Process Air Inlet Actuated Ball Valve # 2	2	2	ANSI 150#	Kuka/Triac	CBA15BGLN/2R200SR-LT	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim w/ Triac Actuator
93	FCV	MIX	108	9517-PID-105c	Blender Air Supply Vent Valve (Double Block - Normally Open)	1	1	FNPT	Jamesbury/Triac	9FB223600XT/2R200SR-LT	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim w/ Triac Actuator
89	FCV	MIX	110	9517-PID-105c	Process Air Back Check Valve	2	2	ANSI 150#	Wheatley	510-025027-121	Carbon Steel Flanged End Check Valve, Raised Face
78	FCV	MIX	111	9517-PID-105c	Process Air Pressure Control Valve	1.5	1.5	ANSI 150#	Fisher	V150 - V Ball	V150 W/Type 2052 Size 1 Diaphragm FO Actuator, DVC6200 Positioner, 4200 Position Transmitter
45	FCV	MIX	121	9517-PID-105b	Mixed Gas Outlet AuctatedFlow Control Valve	3	3	ANSI 150#	Kuka/Triac	CBA15BGLN/2R300SR-LT	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim w/ Triac Actuator
38	FCV	MIX	122	9517-PID-105b	Propane Vapor from Tanks Header Check Valve	1	1	FNPT	Wheatley	822-013072-131	CS Body, SS Clapper, 720# Working Pressure
31	FCV	MIX	123	9517-PID-105a	Propane Vapor from Tanks Vapor Header Ball Valve	1	1	FNPT	Jamesbury	9FB3600XT	Stainless Steel Body, SS Trim, Fire Safe
66	FCV	QT	101	9517-PID-105b	Solenoid Valve Mixed Gas to S.G. Transducer	0.25	0.25	FNPT	Parker Skinner	71215SN2FU00NOH111C2	2-Way, SS Body, 24VDC, Class F, 10 Watt
21	FT	MIX	101	9517-PID-105a	Blender Propane Vapor Flow Transmitter	2	2	ANSI 150#	Hoffer	HO2X2-15-CB-1MC3PAX-F1SS-X / CAT1-3/O-7-D-X	HO Series Turbine Meter w/ Cat3 Microprocessor Transmitter
79	FT	MIX	102	9517-PID-105c	Blender Process Air Supply Flow Transmitter	2	2	ANSI 150#	Hoffer	HO2X2-15-CB-1MC3PAX-F1SS-X / CAT3-2-1-1-DC-X-2/O-X	HO Series Turbine Meter w/ Cat3 Microprocessor Transmitter
6	HV	IAS	108	9517-PID-105a	Control Air Hand Valve for (FCV-MIX-121)	0.25	0.25	FNPT	Rub	S93B41	1/4", Vented, Brass Ball Valve
10	HV	IAS	109	9517-PID-105a	Control Air Hand Valve for (FCV-MIX-101)	0.25	0.25	FNPT	Rub	S93B41	1/4", Vented, Brass Ball Valve
33	HV	IAS	110	9517-PID-105a	Control Air Hand Valve for (FCV-MIX-111)	0.25	0.25	FNPT	Rub	S93B41	1/4", Vented, Brass Ball Valve
51	HV	IAS	111	9517-PID-105b	Control Air Hand Valve for (FCV-MIX-106)	0.25	0.25	FNPT	Rub	S93B41	1/4", Vented, Brass Ball Valve
54	HV	IAS	112	9517-PID-105b	Control Air Hand Valve for (FCV-MIX-108)	0.25	0.25	FNPT	Rub	S93B41	1/4", Vented, Brass Ball Valve
60	HV	IAS	113	9517-PID-105b	Control Air Hand Valve for (FCV-MIX-104)	0.25	0.25	FNPT	Rub	S93B41	1/4", Vented, Brass Ball Valve
4	HV	IAS	114	9517-PID-105a	Control Air Hand Valve for (FCV-MIX-121)	0.25	0.25	FNPT	Rub	S93B41	1/4", Vented, Brass Ball Valve
1	HV	IAS	117	9517-PID-105a	Control Air Hand Valve for (FCV-MIX-123)	0.25	0.25	FNPT	Rub	S93B41	1/4", Vented, Brass Ball Valve
12	HV	MIX	101	9517-PID-105a	Blender Propane Supply Blowdown Valve	0.5	0.5	FNPT	Jamesbury	9FB3600XT	Stainless Steel Body, SS Trim, Fire Safe
85	HV	MIX	102	9517-PID-105c	Insturment Hand Valve for PT & PI-MIX-103	0.5	0.5	MNPT/FNPT	Dragon	10M517G	CS Body, Grafoil Packing - 6000 psig Max
18	HV	MIX	103	9517-PID-105a	Blender Propane Vapor Insturment Hand Valve for PI-MIX & PT-MIX 102	0.5	0.5	MNPT/FNPT	Dragon	10M517G	CS Body, Grafoil Packing - 6000 psig Max
26	HV	MIX	105	9517-PID-105a	Blender Air Supply Insturment Hand Valve for PI-MIX & PT-MIX-105	0.5	0.5	MNPT/FNPT	Dragon	10M517G	CS Body, Grafoil Packing - 6000 psig Max
92	HV	MIX	106	9517-PID-105c	Blender Strainer Blowdown Valve Process Air (ST-MIX-102)	0.5	0.5	FNPT	Jamesbury	9FB3600XT	Stainless Steel Body, SS Trim, Fire Safe
86	HV	MIX	108	9517-PID-105c	Blender Air Supply Insturment Hand Valve for PT & PI-MIX-104	0.5	0.5	MNPT/FNPT	Dragon	10M517G	CS Body, Grafoil Packing - 6000 psig Max
65	HV	MIX	109	9517-PID-105b	Blender Air Supply Blowdown Valve	0.5	0.5	FNPT	Jamesbury	9FB3600XT	Stainless Steel Body, SS Trim, Fire Safe
44	HV	MIX	110	9517-PID-105b	Mixer Instrument Hand Valve for PT & PI-MIX-106	0.5	0.5	MNPT/FNPT	Dragon	10M517G	CS Body, Grafoil Packing - 6000 psig Max
57	HV	MIX	111	9517-PID-105b	Hand Valve (Mixed Gas to Densitometer)	0.5	0.5	MNPT/FNPT	Dragon	10M517G	Carbon Steel Body, SS Trim, Fire Safe
47	HV	MIX	112	9517-PID-105b	Blender Instrument Hand Valve for PT -MIX-107	0.5	0.5	MNPT/FNPT	Dragon	10M517G	CS Body, Grafoil Packing - 6000 psig Max
28	HV	MIX	119	9517-PID-105a	Blowdown valve for (ST MIX 101)	0.5	0.5	FNPT	Jamesbury	9FB3600XT	Stainless Steel Body, SS Trim, Fire Safe
62	HV	QT	101	9517-PID-105b	Hand Valve Test Port for Air Supply to S.G. Transducer	0.25	0.25	FNPT	Jamesbury	9FB3600XT	Stainless Steel Body, SS Trim, Fire Safe
63	I/Z	MIX	101	9517-PID-105b	Current to Position Transmitter for (FCV-MIX-111)	NA	NA	NA	Fisher	DVC 6200	Current to Position Transmitter for (FCV-MIX-111)
11	I/Z	MIX	103	9517-PID-105a	Current to Position Transmitter for (FCV-MIX-102)	NA	NA	NA	Fisher	DVC 6200	Current to Position Transmitter for (FCV-MIX-102)
19	PCV	MIX	101	9517-PID-105a	Blender Propane Vapor Pressure Control Valve #1	2	2	ANSI 150#	Fisher	1098-EGR	Steel Body w/ CL150RF Flanges, 6353 Pilot w/ 3-40 Psig Spring Range, 125 Psig Main Spring
74	PCV	MIX	103	9517-PID-105b	Propane-Air to QT Pressure Control Valve	0.5	0.5	FNPT	Swagelok	KPR1DRC412A20000	General-Purpose Diaphragm-Sensing, 0-30 psig Range
82	PCV	MIX	109	9517-PID-105c	Air Pressure Control Valve	2	2	ANSI 150#	Fisher	1098-EGR	Steel Body w/ CL150RF Flanges, 6353 Pilot w/ 35-125 Psig Spring Range, size 30 actuator
72	PCV	QT	101	9517-PID-105b	Pressure Regulator Supply Gas to S.G. Transducer	0.25	0.25	FNPT	Fisher	R622-BCF	1/2" NPT, 9" to 13" WC Spring Range
53	PE	MIX	101	9517-PID-105b	Static Mixer	4	4	WELD	Custom	59571	CS w/ Sch. 40, A106 Gr B Pipe Housing, OAL = 16" end to end
58	PE	MIX	102	9517-PID-105b	Inlet Filter for QT	0.125	0.125	FNPT	Balston	9156	SS Housing, Coalescing Filter Element
73	PE	QT	101	9517-PID-105b	Specific Gravity Transducer	0.375	0.25	Swagelok	Yokogawa	GD402G-A-E-E/U & GD40T/EJAF3	Specific Gravity Transducer Sample Panel
22	PI	MIX	102	9517-PID-105a	Blender Propane Vapor Inlet Pressure Indicator #2	0.5	NA	MNPT	US Gauge	1981 # 150027DM	4" Dial, 0-200 Psig Range, 1/2" Lower Mount
75	PI	MIX	103	9517-PID-105b	Blender Air Supply Inlet Pressure Indicator #1	0.5	NA	MNPT	US Gauge	1981 # 150027DM	4" Dial, 0-200 Psig Range, 1/2" Lower Mount
80	PI	MIX	104	9517-PID-105c	Blender Air Supply Inlet Pressure Indicator #2	0.5	NA	MNPT	US Gauge	1981 # 150027DM	4" Dial, 0-200 Psig Range, 1/2" Lower Mount

23	PI	MIX	105	9517-PID-105a	Blender Propane Vapor Inlet Pressure Indicator #1	0.5	NA	MNPT	US Gauge	1981 # 150027DM	4" Dial, 0-200 Psig Range, 1/2" Lower Mount
43	PI	MIX	106	9517-PID-105b	Mixed Gas Pressure Indicator	0.5	NA	MNPT	US Gauge	1981 # 150027DM	4" Dial, 0-200 Psig Range, 1/2" Lower Mount
71	PI	MIX	107	9517-PID-105b	Propane-Air to QT Pressure Indicator	0.25	NA	MNPT	Terlice	D83SS2502LA110	2.5" Dial, 0-100 psig, 1/4" LB Mount
46	PI	MIX	108	9517-PID-105b	Mixed Gas Pressure Indicator #2	0.5	NA	MNPT	US Gauge	1981 # 150027DM	4" Dial, 0-200 Psig Range, 1/2" Lower Mount
87	PI	QT	101	9517-PID-105c	Pressure Indicator to S.G. Transducer	0.25	NA	MNPT	Terlice	760B2502LT660	2.5" Dial, 0-30" WC, 1/4" Lower Mount
41	PSH	MIX	101	9517-PID-105b	Mixed Gas High Pressure Switch	0.5	NA	MNPT	Solon	6PSX-1-2	Class 1 Div 1 0-300 Scale
70	PSV	MIX	101	9517-PID-105b	QT Inlet Relief Valve	0.5	0.5	MXFNPT	Fisher	H120-60	60 PSIG Set Pressure
15	PT	MIX	102	9517-PID-105a	Blender Propane Vapor Pressure Transmitter #2	0.5	NA	MNPT	Wika	E-10 # 50033948	0-200 Psig Range, Wire End
64	PT	MIX	103	9517-PID-105b	Process Air Inlet Pressure Transmitter #1	0.5	NA	MNPT	Wika	E-10 # 50033948	0-200 Psig Range, Wire End
68	PT	MIX	104	9517-PID-105b	Blender Air Supply Inlet Pressure Transmitter #2	0.5	NA	MNPT	Wika	E-10 # 50033948	0-200 Psig Range, Wire End
16	PT	MIX	105	9517-PID-105a	Blender Propane Vapor Pressure Transmitter #1	0.5	NA	MNPT	Wika	E-10 # 50033948	0-200 Psig Range, Wire End
36	PT	MIX	106	9517-PID-105a	Mixed Gas Pressure Transmitter # 1	0.5	NA	MNPT	Wika	E-10 # 50033948	0-200 Psig Range, Wire End
42	PT	MIX	107	9517-PID-105b	Mixed Gas Pressure Transmitter # 2	0.5	NA	MNPT	Wika	E-10 # 50033948	0-200 Psig Range, Wire End
14	RTD	MIX	101	9517-PID-105a	Blender Propane Vapor Resistance Temperature Device	0.5	NA	MNPT	Pyromation	R1T185L483-LS4C2.509-SL-8HN71	3 Wire, Element, 100 Ohm Platinum, XP Connection Head
67	RTD	MIX	102	9517-PID-105b	Air Resistance Temperature Device	0.5	NA	MNPT	Pyromation	R1T185L483-LS4C2.509-SL-8HN71	3 Wire, Element, 100 Ohm Platinum, XP Connection Head
34	RTD	MIX	103	9517-PID-105a	Mixed Gas Vapor Resistance Temperature Device	0.5	NA	MNPT	Pyromation	R1T185L483-S4C0409-SL-8HN71	3 Wire, Element, 100 Ohm Platinum, XP Connection Head
30	ST	MIX	101	9517-PID-105a	Blender Propane vapor Inlet Strainer	2	2	ANSI 150#	Titan	YS-61-CS	Carbon Steel Body, SS 40 Mesh Screen
90	ST	MIX	102	9517-PID-105c	Blender Air Inlet Strainer	2	2	ANSI 150#	Titan	YS-61-CS	Carbon Steel Body, SS 40 Mesh Screen
13	TI	MIX	101	9517-PID-105a	Blender Propane Vapor Temperature Indicator	0.5	NA	MNPT	Dwyer	BTLR325101	Bimetal Thermometer, 3" Dial, 0/200 Deg. F, 2.5" Stem
69	TI	MIX	102	9517-PID-105b	Blender Air Supply Temperature Indicator	0.5	NA	MNPT	Dwyer	BTLS325101	Bimetal Thermometer, 3" Dial, 0/200 Deg. F, 2.5" Stem
35	TI	MIX	103	9517-PID-105a	Mixed Gas Temperature Indicator	0.5	NA	MNPT	ReoTemp	AA-040-1-F43/S4C0409	Bimetal Thermometer, 3" Dial, 0/200 Deg. F, 2.5" Stem
24	TW	MIX	101	9517-PID-105a	Blender Propane Vapor Temp. RTD Thermowell	0.5	0.5	MNPT/FNPT	Pyromation	included with RTD (Part of RTD-MIX-101)	1/2" Process Connection, 1 7/16" Insertion Length
25	TW	MIX	102	9517-PID-105a	Blender Propane Vapor Temp. Indicator Thermowell	0.5	0.5	MNPT/FNPT	Pyromation	LS4C2.509 (Part of TI-MIX-101)	1/2" Process Connection, 1 7/16" Insertion Length
83	TW	MIX	103	9517-PID-105c	Blender Air Supply Temp. RTD Thermowell	0.5	0.5	MNPT/FNPT	Pyromation	included with RTD (Part of RTD-MIX-102)	1/2" Process Connection, 1 7/16" Insertion Length
81	TW	MIX	104	9517-PID-105c	Blender Air Supply Temp. Indicator Thermowell	0.5	0.5	MNPT/FNPT	Pyromation	LS4C2.509 (Part of TI-MIX-102)	1/2" Process Connection, 2.5" Insertion Length
40	TW	MIX	105	9517-PID-105b	Mixed Gas Vapor Temp. RTD Thermowell	0.5	0.5	MNPT/FNPT	Pyromation	included with RTD (Part of RTD-MIX-103)	1/2" Process Connection, 2.5" Insertion Length
29	TW	MIX	106	9517-PID-105b	Mixed Gas Temperature Indicator Thermowell	0.5	0.5	MNPT/FNPT	Pyromation	S4C0409 (Part of TI-MIX-103)	1/2" Process Connection, 2 1/2" Insertion Length
27	ZSC	MIX	101	9517-PID-105a	Propane Inlet Valve Proof Closed Switch for (FCV-MIX-101)	0.5	NA	NA	StoneL	EN33C02RA	Proof Closed Limit Switch (Part of FCV-MIX-101)
88	ZSC	MIX	102	9517-PID-105c	Air Inlet Valve # 1 Proof Closed Switch for (FCV-MIX-104)	0.5	NA	NA	StoneL	EN33C02RA	Proof Closed Limit Switch (Part of FCV-MIX-104)
91	ZSC	MIX	103	9517-PID-105c	Air Inlet Valve # 2 Proof Closed Switch for (FCV-MIX-106)	0.5	NA	NA	StoneL	EN33C02RA	Proof Closed Limit Switch (Part of FCV-MIX-106)
95	ZSC	MIX	104	9517-PID-105c	Air Vent Proof Closed Switch for (FCV-MIX-108)	0.5	NA	NA	StoneL	EN33C02RA	Proof Closed Limit Switch (Part of FCV-MIX-108)
52	ZSC	MIX	105	9517-PID-105b	Proof Closed Switch for (FCV-MIX-121)	0.5	NA	NA	StoneL	EN33C02RA	Proof Closed Limit Switch (Part of FCV-MIX-121)
48	ZSC	MIX	106	9517-PID-105b	Tank Vapor Header Proof Closed Switch for (FCV-MIX-123)	0.5	NA	NA	StoneL	EN33C02RA	Proof Closed Limit Switch (Part of FCV-MIX-108)
94	ZSO	MIX	102	9517-PID-105c	Air Vent Valve Explosion Proof Open Switch for (FCV-MIX-108)	0.5	NA	NA	StoneL	EN33C02RA	Proof Open Limit Switch (Part of FCV-MIX-108)
37	ZSO	MIX	103	9517-PID-105a	Proof Open Switch for (FCV-MIX-123)	0.5	NA	NA	StoneL	EN33C02RA	Proof Open Limit Switch (Part of FCV-MIX-123)
84		QT	101	9517-PID-105c	Not on Device TAG Listing						

PROJECT: Berkshire Gas Co.
JOB NUMBER: 9517
REF. DRAWING: 9517-PID-102

FILE DATE: 5/7/2012
REVISION DATE: 7/5/2012
PRINT DATE: 1/29/2013 10:56

The information contained in this document and/or electronic file(s) is proprietary and/or confidential property Standby Systems, Inc. and shall not be used, reproduced or disclosed to others without the express written consent of the respective owner(s). If consent for reproduction or disclosure in whole or in part is given, this notice shall be set forth on each document page and/or in each electronic reproduction so authorized.

Drawing #	DEVICE TAG NAME			REFERENCE DRAWING No.	FUNCTIONAL DESCRIPTION	CONNECT SIZE IN	CONNECT SIZE OUT	CONNECT TYPE	MANUFACTURER NAME	MODEL / CATALOG NUMBER	CONSTRUCTION NOTES
	DEVICE CODE	EQUIP. CODE	ID CODE								
6	HV	AIR	101	9517-PID-102a	Process Air Compressor Discharge Isolation Valve	3	3	ANSI 150#	Kuka	CBA15BGLN	Carbon Steel Body, SS Trim, Fire Safe, Full Port
3	HV	AIR	102	9517-PID-102a	Process Air Tank Drain Valve	1	1	FNPT	RUB	S92EB8	1" Non-Vented Brass Ball Valve
4	HV	AIR	103	9517-PID-102a	Process Air Tank Instrument Isolation Valve	0.5	0.5	MXFNPT	Dragon	10M517G	CS Bar Stock Body - 6000 psig Max
1	PE	AIR	101	9517-PID-102a	Process Air Compressor	NA	3	FNPT	Atlas Copco	GA110-6.9-60	Oil Injected 150 HP Rotary Screw, 747 SCFM @ 90 psig Capacity
7	PE	AIR	102	9517-PID-102a	Process Air Tank	3	3	ANSI 150#	Sylvin Tank	TBD	620 Gallon, 3" 150# Flange Connection, ASME
5	PI	AIR	101	9517-PID-102a	Process Air Tank Pressure Indicator	0.5	0.5	MNPT	US Gauge	1981 # 150027DM	4.5" Dial, 1/2" Lower Mount, Dry, 0-200 Psig Range
2	PSV	AIR	101	9517-PID-102a	Process Air Tank Relief Valve	1"	1/2"	MNPT x FNPT	Kunkle	6283FEV01	978 SCFM Capacity, up to 406 Deg F, 150 Psig Setting
8	FCV	IAS	106	9517-PID-102a	IAS Solenoid Valve for (FCV-VAP-101)	0.25	0.25	FNPT	Parker Skinner	71315SN2MNJ1NOH111C2	3-way, SS body, 24 VDC, Class F, 10W
10	FCV	IAS	107	9517-PID-102a	IAS Flow Control Valve for (FCV-VAP-101)	0.125	0.125	FNPT	Schraeder-Bellows	SPF2008	Flow Control Valve 1/8 "
9	HV	IAS	104	9517-PID-102a	IAS Vented Ball Valve for (FCV-VAP-101)	0.25	0.25	FNPT	RUB	S93B41	1/4" Brass Ball Valve, Vented
17	FCV	VAP	101	9517-PID-102a	Vaporizer Discharge Actuated Ball Valve	3	3	ANSI 300#	Kuka/Triac	CBA30BGLN/2R300SR-LT	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim w/ Triac Actuator
20	HV	VAP	101	9517-PID-102a	Vaporizer Inlet Isolation Ball Valve	2	2	ANSI 300#	Kuka	CBA30BGLN	Full Port, Fire Rated, Carbon Steel Body, Stainless Steel Trim
14	HV	VAP	102	9517-PID-102a	Instrument Isolation Ball Valve	0.5	0.5	MNPT x FNPT	Dragon	10M517G	CS Bar Stock Body - 6000 psig Max
11	PA	VAP	101	9517-PID-102a	Vaporizer Relief Stack Cap	2	NA	NA	Antires weather Cap	WC 5	Weather Cap
12	PA	VAP	102	9517-PID-102a	Vaporizer Relief Valve Pipe Away Adapter	1.25	2	NPT	Rego	3135-10	Relief Valve Pipe Away Adapter
18	PE	VAP	101	9517-PID-102a	Q1650V Vertical Waterbath Vaporizer	1	2	FNPT	Algas-SDI	Q1650V	1650 GPH Liquid Propane Vaporizer
15	PT	VAP	101	9517-PID-102a	Vaporizer Outlet Pressure Transmitter	0.5	NA	FNPT	Wika	E-10 # 4365182	0-300 Psig Scale, Explosion Proof
13	RTD	VAP	101	9517-PID-102a	Vaporizer Outlet Resistive Temperature Device	0.5	NA	FNPT	Pyromation	R1T185L483-S4C0409-SL-8HN71	3 Wire, Element, 100 Ohm Platinum, XP Connection Head
16	TW	VAP	101	9517-PID-102a	Vaporizer Outlet Thermowell for Temperature Transmitter	0.5	NA	FNPT	Pyromation	Part of RTD- VAP-101	1/2" Connection, 2.5" Insertion Length
19	ST	VAP	101	9517-PID-102a	Vaporizer Inlet Strainer	2	2	ANSI 300#	Titan	YS-62-CS	Carbon Steel Body, SS 40 Mesh Strainer