

Cause & Effect Chart									EFFECT	No.	1	2	3	4	5	6
SCVGP HP SALES BOOSTER COMPRESSOR INSTALLATION										Output Type		DO	DO			COMMENTS
SCVGP HP SALES BOOSTER										Resultant Function	Display at Local LOI	Fuel Supply Solenoid Valve	Engine/Compressor Ground Circuit Interrupt			
										TAG No. / Device	LOI	XY-XXXX	XY-XXXX			
CAUSE									P&ID Dwg No.		XXXXXX	XXXXXX				
No.	Signal Type	PLC	Tag No.	Description	Delay	Deadband	Set Point	Scale (Calibration)								
1	DI	S/I	HS-XXXX	Compressor Shutdown Hand Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
2	DI	S/I	FSL-XXXX	Compressor Lube Oil Low Flow Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
3	DI	S/I	LSH-XXXX	Compressor Suction Scrubber High Level Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
4	DI	S/I	LSH-XXXX	Compressor Discharge Scrubber High Level Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
5	DI	S/I	LSL-XXXX	Compressor Oil High Level Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
6	DI	S/I	LSL-XXXX	Engine Oil Low Level Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
7	DI	S/I	LSL-XXXX	Engine Jacket Water Low Level Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
8	DI	S/I	LSL-XXXX	Auxiliary Water Low Level Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
9	DI	S/I	VSH-XXXX	Engine High Vibration Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
10	DI	S/I	VSH-XXXX	Compressor High Vibration Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
11	DI	S/I	VSH-XXXX	Cooler High Vibration Switch					XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
12	AI	S/I	PIT-XXXX	Compressor Suction Pressure Transmitter				0 - XXXX psig	XXXXXXXX							
13			PAHH-XXXX	Compressor Suction High High Pressure Alarm	1 Sec.		257 psig		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
14			PAH-XXXX	Compressor Suction High Pressure Alarm			247 psig		XXXXXXXX	I						
15			PAL-XXXX	Compressor Suction Low Pressure Alarm			55 psig		XXXXXXXX	I						
16			PALL-XXXX	Compressor Suction Low Low Pressure Alarm	1 Sec.		50 psig		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
17	AI	S/I	PIT-XXXX	Compressor 1st Stage Discharge Pressure Transmitter				0 - XXXX psig	XXXXXXXX							
18			PAHH-XXXX	Compressor 1st Stage Discharge High High Pressure Alarm	1 Sec.		420 psig		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
19			PAH-XXXX	Compressor 1st Stage Discharge High Pressure Alarm			410 psig		XXXXXXXX	I						

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										TAG No. / Device	LOI	XY-XXXX	XY-XXXX			
CAUSE									P&ID Dwg No.		XXXXXX	XXXXXX				
No.	Signal Type	PLC	Tag No.	Description	Delay	Deadband	Set Point	Scale (Calibration)								
20			PAL-XXXX	Compressor 1st Stage Discharge Low Pressure Alarm			200 psig		XXXXXXXX	I						
21			PALL-XXXX	Compressor 1st Stage Discharge Low Low Pressure Alarm	1 Sec.		195 psig		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown
22	AI	S/I	PIT-XXXX	Compressor 2nd Stage Discharge Pressure Transmitter				0 - XXXX psig	XXXXXXXX							
23			PAHH-XXXX	Compressor 2nd Stage Discharge High High Pressure Alarm	1 Sec.		825 psig		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown
24			PAH-XXXX	Compressor 2nd Stage Discharge High Pressure Alarm			800 psig		XXXXXXXX	I						
25			PAL-XXXX	Compressor 2nd Stage Discharge Low Pressure Alarm			450 psig		XXXXXXXX	I						
26			PALL-XXXX	Compressor 2nd Stage Discharge Low Low Pressure Alarm	1 Sec.		400 psig		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown
27	AI	S/I	PIT-XXXX	Compressor Oil Pressure Transmitter				0 - XXXX psig	XXXXXXXX							
28			PAL-XXXX	Compressor Oil Low Pressure Alarm			30 psig		XXXXXXXX	I						
29			PALL-XXXX	Compressor Oil Low Low Pressure Alarm	1 Sec.		25 psig		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown
30	AI	S/I	PIT-XXXX	Engine Manifold Pressure Transmitter				- X - XXXX psig	XXXXXXXX							
31			PAHH-XXXX	Engine Manifold High High Pressure Alarm	1 Sec.		6 psig		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown
32			PAH-XXXX	Engine Manifold High Pressure Alarm			5 psig		XXXXXXXX	I						
33			PAL-XXXX	Engine Manifold Low Pressure Alarm			- 14 psig		XXXXXXXX	I						
34			PALL-XXXX	Engine Manifold Low Low Pressure Alarm	1 Sec.		- 15 psig		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown
35	AI	S/I	PIT-XXXX	Engine Oil Pressure Transmitter				0 - XXXX psig	XXXXXXXX							
36			PAL-XXXX	Engine Oil Low Pressure Alarm			38 psig		XXXXXXXX	I						
37			PALL-XXXX	Engine Oil Low Low Pressure Alarm	1 Sec.		34 psig		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown
38	AI	S/I	TE-XXXXX	Compressor Cylinder 1 Discharge Temperature Probe				0 - XXXX °F	XXXXXXXX							

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										TAG No. / Device	LOI	XY-XXXX	XY-XXXX				
CAUSE									P&ID Dwg No.			XXXXXX	XXXXXX				
No.	Signal Type	PLC	Tag No.	Description	Delay	Deadband	Set Point	Scale (Calibration)									
39			TAHH-XXXX	Compressor Cylinder 1 Discharge High High Temperature Alarm	1 Sec.		325 °F		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown	
40			TAH-XXXX	Compressor Cylinder 1 Discharge High Temperature Alarm			300 °F		XXXXXXXX	I							
41	AI	S/I	TE-XXXXX	Compressor Cylinder 2 Discharge Temperature Probe				0 - XXXX °F	XXXXXXXX								
42			TAHH-XXXX	Compressor Cylinder 2 Discharge High High Temperature Alarm	1 Sec.		325 °F		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown	
43			TAH-XXXX	Compressor Cylinder 2 Discharge High Temperature Alarm			300 °F		XXXXXXXX	I							
44	AI	S/I	TE-XXXXX	Compressor Oil Temperature Probe				0 - XXXX °F	XXXXXXXX								
45			TAHH-XXXX	Compressor Oil High High Temperature Alarm	1 Sec.		170 °F		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown	
46			TAH-XXXX	Compressor Oil High Temperature Alarm			165 °F		XXXXXXXX	I							
47	AI	S/I	TE-XXXXX	Engine Cylinder 1 Exhaust Temperature Probe				0 - XXXX °F	XXXXXXXX								
48			TAHH-XXXX	Engine Cylinder 1 Exhaust High High Temperature Alarm	1 Sec.		1325 °F		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown	
49			TAH-XXXX	Engine Cylinder 1 Exhaust High Temperature Alarm			1300 °F		XXXXXXXX	I							
50			TAL-XXXX	Engine Cylinder 1 Exhaust Low Temperature Alarm			750 °F		XXXXXXXX	I							
51			TALL-XXXX	Engine Cylinder 1 Exhaust Low Low Temperature Alarm	1 Sec.		700 °F		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown	
52	AI	S/I	TE-XXXXX	Engine Cylinder 2 Exhaust Temperature Probe				0 - XXXX °F	XXXXXXXX								
53			TAHH-XXXX	Engine Cylinder 2 Exhaust High High Temperature Alarm	1 Sec.		1325 °F		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown	
54			TAH-XXXX	Engine Cylinder 2 Exhaust High Temperature Alarm			1300 °F		XXXXXXXX	I							
55			TAL-XXXX	Engine Cylinder 2 Exhaust Low Temperature Alarm			750 °F		XXXXXXXX	I							
56			TALL-XXXX	Engine Cylinder 2 Exhaust Low Low Temperature Alarm	1 Sec.		700 °F		XXXXXXXX	I	CL	EN				Engine/Compressor Shutdown	
57	AI	S/I	TE-XXXXX	Engine Cylinder 3 Exhaust Temperature Probe				0 - XXXX °F	XXXXXXXX								

Revision0 (As-Built)

Created ByTMK

Reviewed ByXXX

Approved ByXXX

Date09/19/19

Matrix Abbrev.
A = Alarm
C = Control
G = Start (Go)
I = Indicate
OF = Off
ON = On
S = Stop
CL = Close
OP = Open
SD = Shutdown
EN = Energize
DE = De-energize
OS = Operator Settable
OPCI = OPC Input Tag
OPCO = OPC Output Tag

Input Types
AI = Analog Input
DI = Discrete Input
MS = Manual Switch
PLC = Signal to PLC
PS = Press Actuated Signal
LS = Level Actuated Signal
ML = Multilin
HSC = High Speed Counter Pulse

PLC Types
S/I = Engine/comp. Skid Controller

Output Types
AO = Analog Output
DO = Digital Output
ALM = Alarm
PLC=Signal from PLC
ESG = Elec Switchgear
SCADA = Network
SGS = Safeguard System
SOV = Solenoid Oper Valve

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										TAG No. / Device	LOI	XY-XXXX	XY-XXXX			
CAUSE									P&ID Dwg No.		XXXXXX	XXXXXX				
No.	Signal Type	PLC	Tag No.	Description	Delay	Deadband	Set Point	Scale (Calibration)								
58			TAHH-XXXX	Engine Cylinder 3 Exhaust High High Temperature Alarm	1 Sec.		1325 °F		XXXXXXXX	I	CL	EN		SD	Engine/Compressor Shutdown	
59			TAH-XXXX	Engine Cylinder 3 Exhaust High Temperature Alarm			1300 °F		XXXXXXXX	I						
60			TAL-XXXX	Engine Cylinder 3 Exhaust Low Temperature Alarm			750 °F		XXXXXXXX	I						
61			TALL-XXXX	Engine Cylinder 3 Exhaust Low Low Temperature Alarm	1 Sec.		700 °F		XXXXXXXX	I	CL	EN		SD	Engine/Compressor Shutdown	
62	AI	S/I	TE-XXXXX	Engine Cylinder 4 Exhaust Temperature Probe				0 - XXXX °F	XXXXXXXX							
63			TAHH-XXXX	Engine Cylinder 4 Exhaust High High Temperature Alarm	1 Sec.		1325 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
64			TAH-XXXX	Engine Cylinder 4 Exhaust High Temperature Alarm			1300 °F		XXXXXXXX	I						
65			TAL-XXXX	Engine Cylinder 4 Exhaust Low Temperature Alarm			750 °F		XXXXXXXX	I						
66			TALL-XXXX	Engine Cylinder 4 Exhaust Low Low Temperature Alarm	1 Sec.		700 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
67	AI	S/I	TE-XXXXX	Engine Cylinder 5 Exhaust Temperature Probe				0 - XXXX °F	XXXXXXXX							
68			TAHH-XXXX	Engine Cylinder 3 Exhaust High High Temperature Alarm	1 Sec.		1325 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
69			TAH-XXXX	Engine Cylinder 5 Exhaust High Temperature Alarm			1300 °F		XXXXXXXX	I						
70			TAL-XXXX	Engine Cylinder 5 Exhaust Low Temperature Alarm			750 °F		XXXXXXXX	I						
71			TALL-XXXX	Engine Cylinder 5 Exhaust Low Low Temperature Alarm	1 Sec.		700 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
72	AI	S/I	TE-XXXXX	Engine Cylinder 6 Exhaust Temperature Probe				0 - XXXX °F	XXXXXXXX							
73			TAHH-XXXX	Engine Cylinder 6 Exhaust High High Temperature Alarm	1 Sec.		1325 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
74			TAH-XXXX	Engine Cylinder 6 Exhaust High Temperature Alarm			1300 °F		XXXXXXXX	I						
75			TAL-XXXX	Engine Cylinder 6 Exhaust Low Temperature Alarm			750 °F		XXXXXXXX	I						
76			TALL-XXXX	Engine Cylinder 6 Exhaust Low Low Temperature Alarm	1 Sec.		700 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	

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										TAG No. / Device	LOI	XY-XXXX	XY-XXXX			
CAUSE									P&ID Dwg No.		XXXXXX	XXXXXX				
No.	Signal Type	PLC	Tag No.	Description	Delay	Deadband	Set Point	Scale (Calibration)								
77	AI	S/I	TE-XXXXX	Engine Pre-Catalyst Temperature Probe				0 - XXXX °F	XXXXXXXX							
78			TAHH-XXXX	Engine Pre-Catalyst High High Temperature Alarm	1 Sec.		1150 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
79			TAH-XXXX	Engine Pre-Catalyst High Temperature Alarm			1100 °F		XXXXXXXX	I						
80	AI	S/I	TE-XXXXX	Engine Post-Catalyst Temperature Probe				0 - XXXX °F	XXXXXXXX							
81			TAHH-XXXX	Engine Post-Catalyst High High Temperature Alarm	1 Sec.		1125 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
82			TAH-XXXX	Engine Post-Catalyst High Temperature Alarm			1075 °F		XXXXXXXX	I						
83	AI	S/I	TE-XXXXX	Engine Oil Temperature Probe				0 - XXXX °F	XXXXXXXX							
84			TAHH-XXXX	Engine Oil High High Temperature Alarm	1 Sec.		195 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
85			TAH-XXXX	Engine Oil High Temperature Alarm			190 °F		XXXXXXXX	I						
86	AI	S/I	TE-XXXXX	Engine Jacket Water Temperature Probe				0 - XXXX °F	XXXXXXXX							
87			TAHH-XXXX	Engine Jacket Water High High Temperature Alarm	1 Sec.		210 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
88			TAH-XXXX	Engine Jacket Water High Temperature Alarm			205 °F		XXXXXXXX	I						
89	AI	S/I	TE-XXXXX	Engine Auxiliary Water Temperature Probe				0 - XXXX °F	XXXXXXXX							
90			TAHH-XXXX	Engine Auxiliary Water High High Temperature Alarm	1 Sec.		150 °F		XXXXXXXX	I	CL	EN			Engine/Compressor Shutdown	
91			TAH-XXXX	Engine Auxiliary Water High Temperature Alarm			145 °F		XXXXXXXX	I						
92	AI	S/I	TE-XXXXX	Engine Intake Manifold Temperature Probe				0 - XXXX °F	XXXXXXXX							
93			TAHH-XXXX	Engine Intake Manifold High High Temperature Alarm	1 Sec.		160 °F		XXXXXXXX	I						
94			TAH-XXXX	Engine Intake Manifold High Temperature Alarm			150 °F		XXXXXXXX	I					Shutdown on HH need to verify	
95	AI	S/I	TE-XXXXX	Engine Exhaust Turbo Temperature Probe				0 - XXXX °F	XXXXXXXX							

