

Field Device			Fault Description				Alarm Type			Effect							System Operation								
cDAQ Point ID		Point Description	Fault Description	Alarm ID	Period when Alarm Active [Always, Idling, Fueling, Defueling, Purging, Tank Gas Transfer]	Cond.	Alarm Setpoints	Latching	Fault Reset Setpoint	Alarm Priority/Ranking	Hardwired ESD Shutdown	System Operational	HMI Screen Alarm Notification	HMI Screen Alarm Notification Locked	HMI Popup Screen (ESD, Test, OR, Purge, Defuel,etc)	IrDA Command Signal	HMI Screen Alarm Notification Message	cDAQ ESD Shutdown	Audible Alarm	Visual Alarm	Receivable Air Valve [RECEP_AV]	Tank #1 Air Valve [TNK1_AV]	Tank #2 Air Valve [TNK2_AV]	Tank #3 Air Valve [TNK3_AV]	Vent Line Air Valve [VENT_AV]
PointID	ChannelName		Fault	AlarmID	AlarmActiveCondition	SetPoint	Latch	Hysteresis	Priority	ScreenAlarm_	ScreenAlarmLock_Boo	Bool	I	HMI_Popup	IRDI_State	Alarm_Message	ESD_COM	AUD_ALM	VIS_ALM	RECEP_AV	TNK1_AV	TNK2_AV	TNK3_AV	VENT_AV	
YAI 10200	P_recep	Receptacle Inlet Pressure	High Alarm	Point ID + A01	Fueling	>=	90	Y	85	1	N	N	Y	Y	ESD Alarm Summary Screen	Abort	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			High Warning	Point ID + A02	Fueling	>=	85	N	80	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Low Warning	Point ID + A03	Defueling	<=	0.5	N	1	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Low Alarm	Point ID + A04	Never	<=	0	N	0.5	3	N	Y	N	N	Current	Normal	n/a	N	N	N	Auto	Auto	Auto	Auto	Auto
			Wiring Fault	Point ID + A05	Always	>=	100	Y	95	2	N	Y	Y	Y	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Wiring Fault	Point ID + A06	Always	<=	-5	Y	-1	2	N	Y	Y	Y	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
YAI 10201	P_tank1	Hydrogen Tank#1 - Line Pressure	High Alarm	Point ID + A01	Fueling	>=	88	Y	85	1	N	N	Y	Y	ESD Alarm Summary Screen	Abort	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			High Warning	Point ID + A02	Fueling	>=	85	N	80	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Low Warning	Point ID + A03	Defueling	<=	-1	N	2	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Low Alarm	Point ID + A04	Defueling	<=	0.4	Y	1	1	N	N	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			Wiring Fault	Point ID + A05	Always	>=	100	Y	95	2	N	Y	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	N	N	N	Close	Close	Close	Close	Close
			Wiring Fault	Point ID + A06	Always	<=	-5	Y	-1	2	N	Y	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	N	N	N	Close	Close	Close	Close	Close
YAI 10202	P_tank2	Hydrogen Tank#2 - Line Pressure	High Alarm	Point ID + A01	Fueling	>=	88	Y	85	1	N	N	Y	Y	ESD Alarm Summary Screen	Abort	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			High Warning	Point ID + A02	Fueling	>=	85	N	80	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Low Warning	Point ID + A03	Defueling	<=	-1	N	2	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Low Alarm	Point ID + A04	Defueling	<=	0.4	Y	1	1	N	N	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			Wiring Fault	Point ID + A05	Always	>=	100	Y	95	2	N	Y	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	N	N	N	Close	Close	Close	Close	Close
			Wiring Fault	Point ID + A06	Always	<=	-5	Y	-1	2	N	Y	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	N	N	N	Close	Close	Close	Close	Close
YAI 10203	P_tank3	Hydrogen Tank#3 - Line Pressure	High Alarm	Point ID + A01	Fueling	>=	88	Y	85	1	N	N	Y	Y	ESD Alarm Summary Screen	Abort	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			High Warning	Point ID + A02	Fueling	>=	85	N	80	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Low Warning	Point ID + A03	Defueling	<=	-1	N	2	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Low Alarm	Point ID + A04	Defueling	<=	0.4	Y	1	1	N	N	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			Wiring Fault	Point ID + A05	Always	>=	100	Y	95	2	N	Y	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	N	N	N	Close	Close	Close	Close	Close
			Wiring Fault	Point ID + A06	Always	<=	-5	Y	-1	2	N	Y	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	N	N	N	Close	Close	Close	Close	Close
YTI 10300	T_tank1a	Hydrogen Tank#1 - Tank Internal Temperature A	High Alarm	Point ID + A01	Fueling	>=	85	Y	80	1	N	N	Y	Y	ESD Alarm Summary Screen	Abort	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			High Warning	Point ID + A02	Fueling	>=	80	N	75	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Low Warning	Point ID + A03	Defueling	<=	-35	N	-30	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	Auto
			Low Alarm	Point ID + A04	Defueling	<=	-40	Y	-35	1	N	N	Y	Y	ESD Alarm Summary Screen	Abort	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			Wiring Fault	Point ID + A05	Always	>=	100	Y	95	2	N	Y	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			Wiring Fault	Point ID + A06	Always	<=	-5	Y	-50	2	N	Y	Y	Y	ESD Alarm Summary Screen	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
YTI 10301	T_tank1b	Hydrogen Tank#1 - Tank Internal Temperature B	High Alarm	Point ID + A01	Fueling	>=	85	Y	80	1	N	N	Y	Y	ESD Alarm Summary Screen	Abort	[alarm ID]:[point description]+[fault description]+[alarm setpoint]; System in Shutdown. Acknowledge and Return-to-Normal to Reset the Alarm	Y	Y	Y	Close	Close	Close	Close	Close
			High Warning	Point ID + A02	Fueling	>=	80	N	75	3	N	Y	Y	N	Current	Normal	[alarm ID]:[point description]+[fault description]+[alarm setpoint]	N	N	N	Auto	Auto	Auto	Auto	

