Legend
Open = O
Fully open = FO
Close = C
Stop = S
Running = R
Full speed = FS

Interlock	Cause	Detection	Setpoint	Effect / Alarm	Relevant Tag	SOV-201	FIC-202	SOV-202	FIC-207	PIC-201	FIC-214	SOV-204	SOV-203	FIC-209	TIC-213	FCV-201	TIC-212		PIC-207	FIC-208	PIC-206	LIC-203	TIC-207	LIC-202	SOV-205	SOV-206	SOV-207	SOV-209	SOV-208
					Description	Toluene in propanol feed to P201	Liquid feed pump P201 to R201	Hydrogen feed to F201	Hydrogen purge	Hydrogen feed pressure control valve	Hydrogen fan F201	Reactor R201 gas bleed	Reactor R201 liquid bleed	Reactor R201 outlet	Electrical power H201	Cooling water to R201	Electrical power H202		Pressure reduction valve	Cooling water to H203	Vapour distillate S204	Liquid distillate from S204	Saturated steam to H204	Bottom stream from H204	Cooled steam from H204	Distillation column S203 gas bleed	Distillation column S203 liquid bleed	Reflux drum S204 gas bleed	Reflux drum S204 liquid bleed
1	Cooling water flowrate to reactor LL	Cooling water flowrate to reactor R201 extremely low, FSLL-204	1411.6 L/h	FZALL-204		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
1	Cooling water temperature HH	Cooling water temperature to reactor R201 extremely high, TSHH-205	36°C	TZAHH-205		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
2	Pump temperature HH	Pump P201 temperature extremely high, TSHH-206	64°C	TZAHH-206		C	S	C	O	C	S	C	C	O	S	O	S		O	O	O	O	O	O	O	C	C	C	C
2	Liquid flowrate to pump LL	Liquid flowrate to pump P201 extremely low, FSLL-205	89 L/h	FZALL-205		C	S	C	O	C	S	C	C	O	S	O	S		O	O	O	O	O	O	O	C	C	C	C
1	Reactor temperature HH	Reactor R201 temperature extremely high, TSHH-204	80°C	TZAHH-204		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
1	Reactor pressure HH	Reactor R201 pressure extremely high, PSHH-204	7 atm	PZAHH-204		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
3	Reactor level HH	Reactor R201 level extremely high, LSHH-201	15cm	LZAHH-201		C	S	C	O	C	S	C	O	O	S	O	S		O	O	O	O	O	O	O	C	C	C	C
4	Gas pressure to reactor HH	Gas pressure to reactor R201 extremely high, PSHH-205	7 atm	PZAHH-205		C	S	C	O	C	S	O	C	O	S	O	S		O	O	O	O	O	O	O	C	C	C	C
4	Gas flowrate to reactor HH	Gas flowrate to reactor R201 extremely high, FSHH-206	28456 L/h	FZAHH-206		C	S	C	O	C	S	O	C	O	S	O	S		O	O	O	O	O	O	O	C	C	C	C
1	Cooling water flowrate to condenser LL	Cooling water flowrate to condenser H203 extremely low, FSLL-210	2808 L/h	FZALL-210		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
1	Temperature in cooling water HH	Cooling water temperature to condenser H203 extremely high, TSHH-210	41°C	TZAHH-210		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
5	Level in reflux drum HH	Tank S204 level extremely high, LSHH-204	40% above designed level	LZAHH-204		O	R	O	O	O	R	C	C	O	R	O	O		O	O	O	FO	FO	FO	O	C	C	C	O
1	Pressure in distillation column HH	Distillation column S203 pressure extremely high, PSHH-208	3 atm	PZAHH-208		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
1	Temperature in distillation column HH	Distillation column S203 temperature extremely high, TSHH-209	212°C	TZAHH-209		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
6	Level in reboiler HH	Reboiler H204 level extremely high, LSHH-206	40% above designed level	LZAHH-206		O	R	O	O	O	R	C	C	O	R	O	O		O	O	O	O	FO	FO	O	O	C	C	O
7	Level in reboiler LL	Reboiler H204 level extremely low, LSLL-207	40% below designed level	LZALL-207		O	R	O	O	O	R	C	C	O	R	O	O		O	O	O	O	O	C	O	C	C	C	C
8	Pressure in distillation column LL	Distillation column S203 pressure extremely low, PSLL-211	0.3 atm	PZALL-211		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	O	C	O	C	C	C	C
1	Gas temperature to R201 HH	Gas feed temperature extremely high, TSHH-214	80°C	TZAHH-214		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
1	Liquid temperature to R201 HH	Liquid feed temperature extremely high, TSHH-215	80°C	TZAHH-215		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
9	Gas pressure to reactor LL	Gas feed pressure extremely high, PSHH-213	7 atm	PZALL-213		O	R	O	O	FO	FS	C	C	O	R	O	O		O	O	O	O	O	O	O	C	C	C	C
1	Liquid pressure to reactor HH	Liquid feed pressure extremely high, PSHH-210	7 atm	PZAHH-210		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
1	Recycle pressure to reactor HH	Recycle pressure extremely high, PSHH-212	7 atm	PZAHH-212		C	S	C	O	C	S	O	O	C	S	O	S		C	O	O	O	C	C	O	O	O	O	O
10	Recycle flowrate to reactor HH	Recycle flowrate extremely high, FSHH-219	7933 L/h	FZAHH-219		O	R	O	FO	O	R	C	C	O	R	O	O		O	O	O	O	O	O	O	C	C	C	C