Cause and effect matrix

Yellow cells are for you to fill in. Free template from Deskely · deskely.com/resources/cause-and-effect-matrix

Project	Document number	Revision

System or unit	P&ID references	Date

Each row is a cause (an initiator), each column an effect (a final element). X marks that the cause triggers the effect. Example below: a separator and its transfer pumps. Replace it with your own; the example tags are generic.

							Effect tag	XV-1001	XV-1002	XV-1003	BDV-1001	P-1001A	P-1001B	FV-1004	UA-1001			
							Description	Inlet shutdown valve	Gas outlet shutdown valve	Liquid outlet shutdown valve	Blowdown valve	Transfer pump A	Transfer pump B	Flow control valve	Alarm in control room			
							Action	Close	Close	Close	Open	Stop	Stop	Close	Alarm			
No.	Cause tag	Description	Setpoint	Units	Trip	Voting												Remarks
1	PT-1001	Separator pressure high high	12.5	barg	HH	1oo1		X	X	X		X	X		X			
2	PT-1001	Separator pressure low low	2	barg	LL	1oo1		X							X			
3	LT-1002	Separator liquid level high high	85	%	HH	2oo3		X							X			
4	LT-1002	Separator liquid level low low	10	%	LL	2oo3				X		X	X	X	X			
5	TT-1005	Inlet temperature high high	95	°C	HH	1oo1		X							X			
6	HS-1000	Unit shutdown push button						X	X	X		X	X	X	X			
7	F&G	Confirmed fire in the area				2ooN		X	X	X	X	X	X		X			
8	F&G	Confirmed gas in the area				2ooN		X	X	X		X	X		X			
9																		
10																		
11																		
12																		

Sign-off	Name	Signature	Date
Prepared			
Checked			
Approved			