HAZOP STUDY WORKSHEET

Project:	xxxxxxxxxHAZOP-2023-000040	**NODE**	**node1**
Design Intent :	xx	**System**	**xx**
Design Conditions:	x	**HAZOP Boundary**	
Operating Conditions:			
PFD, PID No. :		**Date**	

Guide Word	Deviation	Causes	Consequences	Unmitigated Risk Assessment			Major Accident Event	Existing Safeguards	Mitigated Risk Assessment Matrix			Recommendations	Action by
				S	L	R	(Y/N)		S	L	R		
Flow	1.1 No Flow	x1	xxxx2	4	4	H		x	3	3	M	RECOMMENDATIONS1	Dungrat (TOP-XX)
Flow	1.2 More/HighFlow	xxx2	xxxx2	4	4	H		dd	3	1	L	RECOMMENDATIONS2	Nuttsuda (ADB)
Flow	1.3 Less/Low Flow												
Flow	1.4 Reverse Flow												
Flow	1.5 MisdirectedFlow												
Level	4.1 Less/Low Level												
Level	4.1 More/High Level												
Other Then	5.1 Composition Cha												
Other Then	5.10 External Fire/Ex												
Other Then	5.11 Safety&Human												
Other Then	5.12 Optional Guidev												
Other Then	5.2 Contamination												
Other Then	5.3 Leakage(Heat Ex												
Other Then	5.4 Reaction												
Other Then	5.5 Start Up/Shut Do												
Other Then	5.6 Vent/Drain/Purge												
Other Then	5.7 Maintenance/Ins												
Other Then	5.8 Corrosion/Erosio												
Other Then	5.9 Utilities Service F												
Pressure	2.1 More/High Press												
Pressure	2.2 Less/Low Pressu												
Temperature	3.1 More/High Temp												
Temperature	3.2 Less/Low Tempe												
Viscosity	5.1 More Viscosity												
Viscosity	5.2 Less Viscosity												