HAZOP STUDY WORKSHEET

Project:	t2		NODE	node1
Design Intent :			System	
Design Conditions:			HAZOP Boundary	
Operating Conditions:				
PFD, PID No. :			Date	

Guide Word	Deviation	Causes	Consequences	CAT	Unmitigated Risk Assessment			Major Accident Event	Existing Safeguards	Mitigated Risk Assessment Matrix			Recommendations	Action No.	Action by
				(P/A/E/R/Q)	S	L	R	(Y/N)		S	L	R			
Less/Low Flow	Less of	x1			4	4	H	Y	ex1	4	3	H	r1		rat (TOP-XX)
MisdirectedFlow	Misdirected	x2	c1						41				r2		rat (TOP-XX)
More/HighFlow	More of	x3	c2												rat (TOP-XX)
No Flow	None	x4	c3												rat (TOP-XX)
Reverse Flow	Reverse	x5	c4												rat (TOP-XX)
MLess/Low Pressure	Less of	x6													rat (TOP-XX)
More/High Pressure	More of	x7													rat (TOP-XX)

HAZOP STUDY WORKSHEET

Project:	t2		NODE	node2
Design Intent :			System	
Design Conditions:			HAZOP Boundary	
Operating Conditions:				
PFD, PID No. :			Date	

Guide Word	Deviation	Causes	Consequences	CAT	Unmitigated Risk Assessment			Major Accident Event	Existing Safeguards	Mitigated Risk Assessment Matrix			Recommendations	Action No.	Action by
				(P/A/E/R/Q)	S	L	R	(Y/N)		S	L	R			
Less/Low Flow	Less of	c1			4	3	H		5400	3	3	M	r1		MDP-Jaruwat P.
MisdirectedFlow	Misdirected	c2			4	2	M		5400	3	2	L	r2		MDP-Jaruwat P.
More/HighFlow	More of	c3													MDP-Jaruwat P.
No Flow	None	c4													MDP-Jaruwat P.
Reverse Flow	Reverse	c5													MDP-Jaruwat P.
MLess/Low Pressure	Less of	c6													MDP-Jaruwat P.
More/High Pressure	More of	c7													MDP-Jaruwat P.

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Guide Word	Deviation	Causes	Consequences	CAT (P/A/E/R/Q)	Unmitigated Risk Assessment S	Unmitigated Risk Assessment L	Unmitigated Risk Assessment R	Major Accident Event (Y/N)	Existing Safeguards	Mitigated Risk Assessment Matrix S	Mitigated Risk Assessment Matrix L	Mitigated Risk Assessment Matrix R	Recommendations	Action No.	Action by
Less/Low Flow	Less of	x1			4	4	H	Y	ex1	4	3	H	r1		rat (TOP-XX)
MisdirectedFlow	Misdirected	x2	c1						41				r2		rat (TOP-XX)
More/HighFlow	More of	x3	c2												rat (TOP-XX)
No Flow	None	x4	c3												rat (TOP-XX)
Reverse Flow	Reverse	x5	c4												rat (TOP-XX)
MLess/Low Pressure	Less of	x6													rat (TOP-XX)
More/High Pressure	More of	x7													rat (TOP-XX)

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Project:	t2		NODE	node2
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Guide Word	Deviation	Causes	Consequences	CAT	Unmitigated Risk Assessment			Major Accident Event	Existing Safeguards	Mitigated Risk Assessment Matrix			Recommendations	Action No.	Action by
				(P/A/E/R/Q)	S	L	R	(Y/N)		S	L	R			
Less/Low Flow	Less of	c1			4	3	H		5400	3	3	M	r1		MDP-Jaruwat P.
MisdirectedFlow	Misdirected	c2			4	2	M		5400	3	2	L	r2		MDP-Jaruwat P.
More/HighFlow	More of	c3													MDP-Jaruwat P.
No Flow	None	c4													MDP-Jaruwat P.
Reverse Flow	Reverse	c5													MDP-Jaruwat P.
MLess/Low Pressure	Less of	c6													MDP-Jaruwat P.
More/High Pressure	More of	c7													MDP-Jaruwat P.