Risk Assessment

Project :	
Person responsible :	
Date :	
Area :	

Steps to be followed

1. Establish the context for the risk assessment , also establish the objectives of the exercise as well as boundaries
2. Identify all risk present. At this stage it is best not to express any type of opinion of the suggested risk as this tends to discourage participants from highlighting risks that they may perceive to be trivial

<u>Once all risks have been identified repeat in sequence for each</u>

3. Analyse the risks in terms of PROBABILITY as well as CONSEQUENCE

1ns a minute	High	5	10	15	20	25
1ns a hour		4	8	12	16	20
1ns a day	Probability	3	6	9	12	15
1ns a week		2	4	5	8	10
1ns a month	Low	1	2	3	4	5
		Low		**Consequence**		**High**

Time lost	5 min	30 min	1 hour	4 hours	1 day
Injuries	Near Miss	Minor	Major	1 Death	1< Death
Loss of Money	> 5K	> = 50k	> = 200k	> = 500k	> = 950k

Table1

4. Discuss at least two possible ways to reduce this risk and decide on the most effective option to be used. Give the option decided on a score in terms of its effectiveness in reducing the risk.

Effectiveness					
1	5	10	15	20	25
Negligible					Removed

Table2

5. Score all the risks =(Point3 / Point4)
6. Implement the mitigation option agreed on and monitor for effectiveness

Key for filling in of the table

Column 1: Category E (electrical); M (Mechanical); Pro (Process); S (Software); P (People)
Column 2: Identified risk a short description of the risk including: **Area , Point in process** (design , construction , installation , commissioning , handover)
Column 3: Table 1 the score from the Probability vs. Consequence table on a scale of 1-25
Column 4: Table 2 a score indicating how effective the mitigation measure will be in removing the risk: 1 no effect, 25 risk removed completely
Column 5: Table 1/Table 2 risks overall score: 1 - No risk 25 - Extremely high risk stop all work until a solution is found
Column 6: A description of the measure that will be put in place to mitigate the risk

Note: Ai2 will maintain Risk Assessment but SAM & NPC is to rate each risk individually and to point new risks to AI2 so tables may be updated.

NB: Group Risk into four Categories:

1. Environmental
2. Trace Work & Loop Checks
3. FAT/ Shut Planning
4. Install / Commissioning

Risk Assessment

Category	Identified Risk	Table1	Table2	Table1 /Table2	Mitigation measure to be implemented
E/P	**Area: All Point in process : Environment** Electrocution				Use correctly insulated tools.
P	**Area: All Point in process : Environment** Working at Heights				If above 1.2m fetch safety harness from workshop. Use approved Ladders / Scaffolding.
P	**Area: All Point in process : Environment** Bad visibility				Torches to be used. Use marked walk ways and hold onto safety railing.
	Area: Point in process : Environment Production vehicles				Reflected vest are to be worn.
E	**Area: All Point in process : Trace Work / Loop checks** Risk of dropping something in the panel				Create awareness
E	**Area: All Point in process : Trace Work / Loop checks** Risk of not being able to trace a signal				Leave difficult signals for shut periods. Get Personnel involved.
P	**Area: All Point in process : Trace Work / Loop checks** Pushing button by mistake				Note where they are. Notify operator.
E	**Area: All Point in process : Trace Work / Loop checks** Risk of creating a short circuit				Test all wires making up panel as well as wires to the panel. Use both a multimeter as well as a resistance tester were appropriate

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E	**Area: All Point in process : Trace Work / Loop checks** Risk of wire number falling off				Use approved panel wiring system and insure there are lugs on all wires after Label has been placed.
E	**Area: All Point in process : Trace Work / Loop checks** Risk of pulling a wire out				Open up panels with care. Make sure that the terminals are adequately tightened.
	Area: Point in process : FAT/Shut Planning Contamination avoidance				Correct interlocks in code
E	**Area: All Point in process : Install /Comm** Risk of incorrect termination				Mark terminals before working on wires. Mark unmarked wires.
E	**Area: All Point in process : Install /Comm** Risk of equipment not fitting in panel				TBA
E	**Area: All Point in process : Install /Comm** Risk of decommissioning equipment that should stay				TBA
E/So	**Area: All Point in process : Install/Comm** Risk of not solving an issue within acceptable time				TBA
P	**Area: All Point in process : Install/Comm** Risk of having to work longer than legal limits				TBA

Category	Identified Risk	Table1	Table2	Table1 /Table2	Mitigation measure to be implemented
P	**Area: All** **Point in process : Install/Comm**				TBA
	Help required from 3rd Parties				
P	**Area:** **Point in process :**				TBA
	Shut time (Power free access) available				
	Area: **Point in process :**				To do work in the rail off loading section a day permit can either be obtained from the control room or an annual permit from Safety officer.
	Siding Risk				
	Area: **Point in process :**				
	Area: **Point in process :**				
	Area: **Point in process :**				
	Area: **Point in process :**				

Risk Assessment

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	Area: **Point in process :**				
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	Area: **Point in process :**				
	Area: **Point in process :**				

Approval	**:**	**Yes**	**No**
Project Manager	**:**		
Date	**:**		