

Hazard Identification, Risk Assessment And Risk Control Register (HIRA)														Page No.				
Activity	Sub-Activities	E	R / NR	Hazard	Risk	Legal	Probability	Consequence	Result	Risk level	Sig. Hira No.	Priority No.	Additional Controls					
													Operational Control					
													E	S	EC	W	P	MP No
<b>Melting</b>																		
Receiving of ingots and rej from stores	Requisition given to stores .		R															
	Transfer the ingots bundle and rejection by forklift to melting.		R	Site transport	1	Incident		2	2	4	M							
			R	Fall of material on the level	2	Incident		2	2	4	M							
			NR	Wetting of material due to rain	3	Incident		2	2	4	M							
Charging into the melting furnace.	Cut the ingots strip		R	Strip may contact with skin	4	Cut Injury		2	2	4	M							
	Lift the ingots with hands(manual lifting) and throw it into the furnace.		R	Manual lifting of Al ingots	5	Sprain		2	2	4	M							
			R	Fall of ingot/rej casting from height	6	Foot Injury		2	2	4	M							
	Lift the ingots with hands(manual lifting) and put it in trolley		R	Manual lifting of Al ingots	7	Sprain		2	1	2	L							
			R	Fall of material on the level	8	Foot Injury		2	1	2	L							
Melting operation	Put oily cotton inside the furnace		NR	Oily cotton may contact with skin	9	Skin irritation		2	1	2	M							
			NR	Smoke that may inhale	10	Respiratory inhalation		2	1	2	M							
	Keep the fire		NR	Fire & explosion	11	Incident		2	2	4	M							
			NR	High noise	12	Partial deafness		2	2	4	M							
	Starting of the Melting furnace blower Furnace oil pump and burner&Exhaust Blower and Scrubber pump		R	Exposure to electrical energy	13	Electric shock		2	2	4	M							
	Adjustment the flame.		R	Fall of person on the level	14	Body injury		2	2	4	M							
	Melt the charge.		R	Exposure to heat radiation	15	Skin irritation/Dehydration		2	2	4	M							
	Wrapping the charge with scrapper		R	Exposure to heat radiation	16	Skin irritation/Dehydration		2	2	4	M							
			R	Molten metal may contact with skin	17	Burn		2	2	4	M							
	Take the molten metal sample into the sampling cup with spoon.		R	Fall of molten metal	18	Burn		2	1	2	L							
			R	Exposure to heat radiation	19	Skin irritation		2	1	2	L							
	Quench the solidified sample in water		R	Hot sample may contact with skin	20	Burn		2	1	2	L							
Spectro analysis	Collect the Argon cylinder from stores.		R	Fall of cylinder	21	Injury		2	2	4	M							
	Store the cylinder in site.		R	Fall of cylinder	22	Injury		2	1	2	L							
	Scratch surface of the sample on table belt grinder		R	Slipping of the tool	23	Cut injury		2	1	2	L							
			R	Chips may contact with eye	24	Eye injury		2	2	4	M							
			R	Slipping of the Job	25	Incident		2	1	2	L							
	Analyse the sample		R							0								
	Print the report		R							0								
Temperature measurement	Measure the temperature with thermocouple.		R	Exposure to heat radiation	26	Skin irritation		2	1	2	L							
	Switch off the blower and burner		R	Exposure to electrical energy	27	Electric shock		2	1	2	L							
Preheating of the ladle.	A)Connect the preheating burner to the supply(LPG and air)		NR	Manual handling of the burner	28	Incident		2	2	4	M							
	Keep the ladle in right position		NR	Hot ladle may contact with skin	29	Burn		2	2	4	M							
	Put the burner above the ladle(Preheating stand)		NR	Manual handling of the burner	30	Incident		2	1	2	L							
	Put the fire manually		NR	Fire & explosion	31	Incident		2	2	4	M							
	Open the LPG Cylinder and Air valve		NR	Fire & explosion	32	Incident		2	2	4	M							
	Regulate the LPG and Air flow.		NR	Fire & explosion	33	Incident		2	2	4	H							
	After completion of pre heating close the valves of LPG and air supply.		NR	Fire & explosion	34	Incident		2	2	4	M							









