

CHINMAY ENGINEERS

Hazard Identification, Risk Assessment & Risk Control Register

Department : Coolant Recovery Plant, Effluent Treatment Plant & Scrap Block Machine

Activity	Sub Activity	Hazard	Hazard No	Risk	Control Prevention			Risk Assessment	
					Engineering Control	Administrative Control	PPE	Risk Rating	Severity
Coolant Tank handling	1) Raw material moved from shop in barrel on Trolley	Fall of material from height on foot	1	Injury			Safety Shoes	1	Negligible
	2) Unloaded in tank with help of Electric Suction Pump	Sprains due to manual handling of material	2	Injury			Proper lifting techniques	2	Minor
		Tripping or Falling due to Spillage	3	Injury		Daily Housekeeping Activities	Safety Shoes	1	Negligible
Magnetic Filter Process	1) Raw Coolant passes through Magnetic Filter by pressure								
Bag Filter Process	1) Pass through Micron Bag Filter								
Oil Skimmer	1) Removes oil contents from Coolant using special belt								
	2) Disposal of Tram Oil	Tripping or Falling due to Spillage Skin infection due to Coolant / Metal Particles	4 5	Injury Injury		Daily Housekeeping Activities	Safety Shoes, Eye Wear & Handgloves	1 1	Negligible Negligible
Oil Trace Removal (OTR)	1) Oil Traces are removed								
	2) Replacement of Resin / Carbon Media	Tripping or Falling due to Spillage Inhalation of Resin / Carbon while Replacement	6 7	Injury Ill Health			Safety Shoes Mask & Handgloves	1 2	Negligible Minor
Intermediate Tank	1) Used only for Holding purpose								
	2) Oil Skimming by Manual Operation	Tripping or Falling due to Spillage	8	Injury			Safety Shoes	1	Negligible
Micron Filter	1) Pass through 5 Micron filter								
Process Tank	1) Actual process happens in this tank	Skin infection due to use of Active 50 chemicals		Ill Health			PVC Handgloves	2	Minor
	2) Treated Coolant is then tranfered to Treated Tank	Sprains due to manual handling of material		Injury			Proper lifting techniques	2	Minor
	3) Treated Coolant is then transferred to Machine Shop								
Daily / Weekly / Monthly Maintenance	1) Membrane Cleaning / Replacement	Substance that may cause harm by coming in contact with or being absorbed through skin cut (Sharp edge)		Injury			PVC Handgloves	1	Negligible
		Skin Infection due to Coolant / Citric Acid / Caustic Soda		Ill Health			PVC Handgloves	1	Negligible
		Fall of material from height on foot		Injury			Safety Shoes	1	Negligible
	2) Cleaning of Magnetic Filter	Substance that may cause harm by coming in contact with or being absorbed through skin cut (Sharp edge)		Ill Health			PVC Handgloves	1	Negligible
		Skin infection due to Coolant / Metal Particles		Injury			PVC Handgloves	1	Negligible
		Fall of material from height on foot		Injury			Safety Shoes	1	Negligible
	3) Bag Filter Cleaning / Replacement	Skin infection due to Coolant / Metal Particles		Ill Health			PVC Handgloves	1	Negligible
	4) Micron Filter Cleaning / Replacement	Skin infection due to Coolant / Metal Particles		Ill Health			PVC Handgloves	1	Negligible
	5) Cleaning of All Tanks	Substance that may cause harm by coming in contact with or being absorbed through skin cut (Sharp edge)		Ill Health			PVC Handgloves	1	Negligible
		Skin infection due to Coolant / Metal Particles		Ill Health			PVC Handgloves	1	Negligible
Fall of material from height on foot			Injury			Safety Shoes	1	Negligible	

Severity	Example	Rating
Catastrophic	Numerous Fatalities, irrecoverable property damage & Productivity	5
Fatal	Apprx. 1 fatality, Major Property Damage, if Hazard is realized	4
Serious	Non-Fatal Injury, Permanent Disability	3
Minor	Disabling but not permanent injury	2
Negligible	Minor Abrasion, Bruises, Cuts First Aid Type Injury	1

Likelihood (L)	Severity (S)				
	1	2	3	4	5
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5

Risk	Description	Action
15 to 25	High	A HIGH risk requires immediate action to control the hazard as detailed in the hierarchy of control. Actions taken must be documented on the risk assessment form including date for completion.
5 to 12	Medium	A MEDIUM risk requires a planned approach to controlling the hazard and applies temporary measure if required. Actions taken must be documented on the risk assessment form including date for completion.
1 to 4	Low	A LOW risk may be considered as acceptable and further reduction may not be necessary. However, if the risk can be resolved quickly and efficiently, control measures should be implemented