

HAZARD ANALYSIS AND RISK ASSESSMENT

 Department/Area Unit 2 & Unit 1

 Last Updated: March 18, 2020

Sr. #	Department /Area	Activity / Process	Identified Hazard	Possible Impact	Condition (R/NR)	Risk Assessment			Significance	Possible Control Measures	Applied Controls	Residual Risk			Residual Significance
						Occurrence (O)	Severity (S)	Risk (R) = (O*S)				Occurrence (O)	Severity (S)	Risk (R) = (O*S)	
1	Admin	Construction	Work at height (Fall of object and fall of employee)	Damage to employee health and material. Minor injury to major injury can occur	NR	2	4	8	Medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	1	4	4	low
2			Randomly items placed (Slip trip & fall)	Minor injury to major injury can occur	NR	2	4	8	Medium	a) Design work permits & implement it. b) Provide TBT & monitor activities.	a) & b) done	1	4	4	low
3			Noise	Deafness , hearing impairment, irritation, headache, high blood pressure	NR	2	1	2	low	a) Design work permits & implement it. b) Provide ear muffz/plugs	a) & b) done	1	1	1	low
4			Hand arm vibration	White finger affect, tissue damage, bone structure damage	NR	2	3	6	low	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide & implement PPEs	a) to c) done	1	2	2	low
5			Exposure to dust (Air born fibers & materials)	Lungs damage , eyes damage	NR	3	3	9	Medium	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide mask & make sure its compliance	a) to c) done	2	2	4	low

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6			Exposure to cement	Allergy, skin dryness, Lungs damage , eyes damage	NR	3	3	9	Medium	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide mask & make sure its compliance	a) to c) done	2	2	4	low
7			Water spillage (Slip & fall)	Minor injury to major injury can occur	NR	2	3	6	Low	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide spillage kit	a) to c) done	2	2	4	low
8			Immature scaffold making (Scaffolding collapse)	Damage to employee health and material. Minor injury to major injury can occur	NR	2	5	10	medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	1	3	3	low
9	Admin	Construction	Sudden demolition	Damage to employee health and material. Minor injury to major injury can occur	NR	2	5	10	medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW.	a) to b) done	1	3	3	low
10			Exposure to Asbestos	Allergy, skin dryness, Lungs damage , eyes damage, cancer	NR	1	5	5	Low	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide mask & make sure its compliance	a) to c) done	1	3	3	low

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11	Admin	Cleaning of mirror from out side	Work at height (Fall of object and fall of employee)	Damage to employee health and material. Minor injury to major injury can occur	NR	2	4	8	Medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	1	4	4	low
12			Working plate form collapse	Damage to employee health and material. Minor injury to major injury can occur	NR	2	5	10	medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	1	3	3	low
13			Harsh weather	Damage to employee health and material. Minor injury to major injury can occur	NR	2	5	10	medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	1	3	3	low
14	Admin	Paint & white wash	Exposure to chemicals	Allergy , faintness, headache, blood pressure, lungs damage.	NR	4	3	12	medium	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide mask & make sure its compliance	a) to c) done	2	2	4	low
15			Improper storage of chemicals (Fire, Spillage & slip trip)	Damage to employee health and material. Minor injury to major injury can occur	NR	2	4	8	Medium	a) Design work permits & implement it. b) Provide TBT & monitor activities.	a) to c) done	2	2	4	low

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16	Admin	Paint & white wash	Work at height (Fall of object and fall of employee)	Damage to employee health and material. Minor injury to major injury can occur	NR	2	4	8	Medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	1	4	4	low
17	EMD	Welding & grinding at operational area	Exposure to radiation	acute health effects such as skin burns & acute radiation syndrome	NR	3	2	6	Medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	2	2	4	low
18			Exposure heat or hot parts	Burns, heat exhaustion, heat stroke	NR	2	2	4	Medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	2	2	4	low
19			Exposure to fumes	Faintness, headache, blood pressure, lungs damage.	NR	4	3	12	medium	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide mask & make sure its compliance	a) to c) done	2	2	4	low

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20			Exposure to sharp blade	Minor to major cuts on body	NR	2	4	8	Medium	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide mechanical gloves & make sure its compliance	a) to c) done	2	2	4	low
21	EMD	Welding & grinding at operational area	Welding & grinding near to flammable chemical	Fire	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Barricade the area & make welding hut.	a) to c) done	2	2	4	low
22			Exposure to noise	Deafness , hearing impairment, irritation, headache, high blood pressure	NR	2	1	2	low	a) Design work permits & implement it. b) Provide ear muffz/plugs	a) & b) done	1	1	1	low
23	EMD	Transfer of heavy objects/ Machine installation	Lack of lifting equipment inspection/calibration	Collapse of equipment, damage to material, minor to major injuries to employees, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Make sure the inspection/collaboration	a) to c) done	2	3	6	low
24			Lack of prior inspection of lifting equipment	Collapse of equipment, damage to material, minor to major injuries to employees, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Make sure the prior inspection	a) to c) done	2	3	6	low

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25			Unbalance base/floor	Collapse of equipment, damage to material, minor to major injuries to employees, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Make sure the prior inspection of area	a) to c) done	2	3	6	low
26	EMD	Transfer of heavy objects/ Machine installation	Rush or presence of non authorized employees	Barrier in controlling process, Minor to major injuries, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Barricade the area & and keep away unauthorized employees	a) to c) done	2	3	6	low
27			Contact with electrical cables	Electric shock, Collapse of equipment, damage to material, minor to major injuries to employees, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Inspect the area & isolate electrical wires	a) to c) done	2	3	6	low
28			Unauthorized or untrained or inexperienced workers and driver	Collapse of equipment, damage to material, minor to major injuries to employees, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities.	a) to b) done	2	3	6	low
29			Work at height (Fall of object and fall of employee)	Damage to employee health and material. Minor injury to major injury can occur	NR	2	4	8	Medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	1	4	4	low

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30	Admin/EMD	Cleaning or maintenance of underground tank	Unauthorized or untrained or inexperienced operators/employees	Damage to material, minor to major injuries to employees, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities.	a) to b) done	2	3	6	low
31			Exposure to Poisoned gasses & low level of oxygen	Faintness, dizziness, unconsciousness, minor to major injury, fatality/ies	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Do forced ventilation & check the composition of gases d) Make available ERT	a) to d) done	2	3	6	low
32			Work at height (Fall of object and fall of employee)	Damage to employee health and material. Minor injury to major injury can occur	NR	2	4	8	Medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	1	4	4	low
33			Not using LOTOTO (Exposure to unwanted/undesired fluids, energy or movement)	Minor injury to major injury may occur or even fatalities.	NR	2	4	8	Medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement tools & PPEs	a) to c) done	1	4	4	low
34			Welding/grinding/hammering inside the tank	Fire	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Make sure to eliminate any flammable factors.	a) to c) done	2	2	4	low

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35	EMD	Cleaning of smoke/heat detectors & ceiling	Work at height (Fall of object and fall of employee)	Damage to employee health and material. Minor injury to major injury can occur	NR	2	4	8	Medium	a.) Design work permits system to control work at height activities. b.) Implement & control PTW. c.) Provide & implement PPEs	a) to c) done	1	4	4	low
36			Exposure to dust	Lungs damage , eyes damage	NR	3	3	9	Medium	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide mask, goggles & make sure its compliance	a) to c) done	2	2	4	low
37			Exposure to Uncovered/damaged electrical wires	Electric shock, damage to material, minor to major injuries to employees, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Inspect the area & isolate electrical wires	a) to c) done	2	3	6	low
38	Store	Material shifting on huge scale	Exposure to insects/snakes/mice	Minor injury to major injury can occur, Fatalities	NR	2	4	8	Medium	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Inspect the area & PPEs.	a) to c) done	2	2	4	low
39			Exposure to chemical; dust	Lungs damage , eyes damage	NR	3	3	9	Medium	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide mask, goggles & make sure its compliance	a) to c) done	2	2	4	low

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40			Manual handling	Musculoskeletal disorder, low back pain, acute trauma such as cuts or fractures due to accidents.	NR	3	2	6	Low	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Provide PPEs	a) to c) done	2	2	4	low
41			Lack of lifting equipment inspection/calibration	Collapse of equipment, damage to material, minor to major injuries to employees, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Make sure the inspection/collaboration	a) to c) done	2	3	6	low
42			Lack of prior inspection of lifting equipment	Collapse of equipment, damage to material, minor to major injuries to employees, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities. c) Make sure the prior inspection	a) to c) done	2	3	6	low
43			Unauthorized or untrained or inexperienced operators/employees	Damage to material, minor to major injuries to employees, fatalities	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities.	a) to b) done	2	3	6	low
44			Blockage of fire extinguisher, call points, emergency exit, electrical boards/control panels	Barriers in emergency, slip, trip & fall injuries, Fire	NR	3	5	15	High	a) Design work permits & implement it. b) Provide TBT & monitor activities.	a) to b) done	2	3	6	low

Prepared By (QHSE Team Member/HOD):

Reviewed By (Compliance Team):

Approved By (GM):