

Occupational Health and Safety Baseline risk assessment template																											
Project/Dept:	CHEMICAL SERVICES										Next Review Date:			Unique identifier	240-70044602												
Date:	Jun-23					Prepared by:	CS TSHABALALA					Revision:	5		Revision date:	Apr-19											
Refer to Occupational Health and Safety Risk assessment procedure 32-520																											
1: List activity	2: Hazard identification		3: Risk identification					4: Assess & Analyse Risks					4: Evaluate Risk					5: Reduce & Eliminate Risk									
List activity (When applicable)	Hazard nr	Hazard Identification	Risk Nr	Associated risk (Risk identification)	Risk type	Exposed group/employees	Exposure patterns	Cause(s) of the risk	Risk Owner	Conditions/Routine/No routine	What are the Consequences?	Existing Controls	First determine Consequence and then the Likelihood of that Consequence.	Additional Controls or Tasks Aimed at improving Existing Controls	First determine Consequence and then the Likelihood of that Consequence.	Monitoring Mechanisms	Control Owner	Legal and Other Requirements	Initial Target Date	Revised Target Date	Current Status	Independent Verification (i.e. Confirmation that the objectives have been met)					
List specific activities to be performed taking into consideration the equipment to be used, the personnel involved in the task.	#	A hazard is anything that is likely to lead to a situation that could have an adverse impact on achieving an objective. A hazard can pose more than one risk.	#	A physical event occurs or could occur in relation to the hazard	Safety or health	Who is exposed to the hazard i.e. Employees, visitors, members of the public, etc.	The frequency and duration the person/group is exposed to the hazard e.g. Daily for 3 hrs.	What causes the risk to come into effect?	Who is accountable for making sure the controls and monitors are in place, - implemented, - regularly reviewed for effectiveness.	Indicate Yes or No/Yes if routine and No if non-routine, and if there are any long-term changes to conditions that could not be reasonably anticipated e.g. Emergencies	What is the expected adverse impact on the objective?	Include: - Preventative Controls (controls implemented to eliminate hazards or reduce the likelihood of the risk occurring), and - Basic controls: (controls implemented to reduce the immediate impact of the risk occurring)	Consequence	Likelihood	Risk Priority Rating	Include: - Preventative Controls (controls implemented to eliminate hazards or reduce the likelihood of the risk occurring), and - Basic controls: (controls implemented to reduce the immediate impact of the risk occurring)	Consequence	Likelihood	Risk Priority Rating	How we know if we are succeeding. Include comments on effectiveness. This may include i.e. measurements, inspections, supervision where necessary	Person allocated the responsibility for implementing the agreed controls	Where relevant, list the relevant legislative and or Eskom requirements that prescribe the control.	Once a date has been agreed to, this can be changed	Used if, for any reason, a Target Date is revised. Use the Comments field to explain.	Pending, In Progress, Complete	Date Done:	By whom:
Plant walks	1	Uneven surfaces, Grasings	1	Slipping/tripping/falling	Safety	Employees/contractors/visitors	3hrs daily	Corroded grating/walkways, wrong PPE, stairs.	Vusi Mahlaba	Yes	Sprains, strains, lacerations, fatality	Proper safety shoes, anti-slip strips on stairs, Safe work methods, Facility inspection system, Facility cleaning, Guarding/banners/rails	2	2	IV	F											
1.1 Heights	1.1	Falling	1.1	Falling	Safety	Employees/contractors/visitors	3hrs daily	No safety harness, loose handrails	Vusi Mahlaba	Yes	Sprains, strains, lacerations, fatality	Safe work methods, Facility inspection system, Facility cleaning, proper PPE, Guarding/banners/rails	4	1	IV	F											
Inspections	2	Restricted work space	2	Slipping/tripping/falling	Safety	Employees	3hr daily	Restricted work space Inside vessels	Vusi Mahlaba	Yes	Sprains, strains, lacerations	Safe work methods, Facility inspection system, Facility cleaning	2	2	IV	F											
Condenser tube leak detection and vessel plant inspection	3	Exposed to heat and humidity	3	Fatigue	Safety	Employees	3hr daily	Heat	Vusi Mahlaba	Yes	Fainting	Safe work methods, Job rotation, Medical surveillance, Training - Occ. Exposure	2	2	IV	F											
Sampling and analysis of plant water, oil and coal. Analytical chemistry	4	Fugitive fumes generated during analysis, PF dust, mercury, acid fumes	4	Irritation/ pneumoconiosis/poisoning	Health	Employees	3hr daily	In-organic dust, Airborn contaminants	Vusi Mahlaba	Yes	Irritation/ pneumoconiosis/poisoning	Training - Occ. Exposure, Dust mask, Medical surveillance	2	2	IV	F											
Sampling and analysis of plant water, oil and coal. Make-up and plant dosing.	5	Corrosive liquids	5	Dermal burns and inflammation	Safety	Employees	3hr daily	Corrosive liquids	Vusi Mahlaba	Yes	Dermal burns and inflammation	Training - Occ. Exposure, Hand protection, Face protection, Emergency equipment, Escape and evacuation facilities	2	2	IV	F											
Sampling and analysis of plant water, oil and coal. Collecting samples in plant. Exposure to poisonous substances	6	Toxic gas/fumes	6	Poisoning/carcinogens/mutagenic	Safety	Employees	3hr daily	Volatile and flammable	Vusi Mahlaba	Yes	Poisoning/carcinogens/mutagenic	Training - Occ. Exposure, Dust mask, Medical surveillance	2	2	IV	F											
Laboratory work	7	Common ventilation systems	7	Poisoning contamination for laboratory	Safety	Employees/contractors	3hrs daily	Defective air-conditioning system	Vusi Mahlaba	Yes	Poisoning contamination for laboratory	Equipment inspections, Air quality survey, Separate Extraction systems	2	2	IV	F											
	7.1	Chemicals	7.1.1	Skin/eye irritation	Health	Employees/contractors	3hrs daily	Oxidising agents acids	Vusi Mahlaba	Yes	Chronic - Skin irritation	Full protective suit, Gloves, Goggles	2	2	IV	F											
			7.1.2	Chronic damage to health	Health	Employees/contractors	3hrs daily	Organic materials	Vusi Mahlaba	Yes	Bronchitis shortness of breath, collapse, vomiting, kidney damage	butyl rubber gloves, flame retardant anti static clothes, respirator filter E (P2)	2	2	IV	F											
			7.1.3	Explosion	Safety	Employees/contractors	3hrs daily	Flammable Solid may ignite combustibles	Vusi Mahlaba	Yes	Dermal burns and inflammation	Full protective suit, Keep away from combustible materials No excessive heat	2	2	IV	F											
			7.1.4	Burns	Safety	Employees/contractors	3hrs daily	Corrosive liquids, ovens	Vusi Mahlaba	Yes	Dermal burns, eye damage and inflammation	Full protective suit, Respirator filter B/P3 Gloves Goggles	2	2	IV	F											
			7.1.5	Productive toxicity	Health	Employees/contractors	3hrs daily	Hazardous vapours	Vusi Mahlaba	Yes	Damage fertility, cause harm to unborn child	Goggles Gloves Respirator, Full protective suit	2	2	IV	F											
Production and treatment of demin, cooling, potable and sewage water. Bulk offloading of chemicals and chemical sampling in plant.	8	Corrosive liquids	8	Burns	Health	Employees/contractors	3hrs daily	Acid, caustic, resins, polyferric chloride and lime.	Vusi Mahlaba	Yes	Dermal burns and inflammation	Proper PPE, Escape and evacuation facilities	2	2	IV	F											
	8.1	Slippery floor	8.1.1	Slipping/tripping/falling	Safety	Employees/contractors	3hrs daily	Chemical leaks onto floors	Vusi Mahlaba	Yes	Sprains, strains, lacerations	Housekeeping, Facility inspection system	2	2	IV	F											
Lifting					Health					Yes		Education and awareness, Person job specifications	2	2	IV	F											
	9	Manual handling	9	Muscle strain	Employees/contractors	3hrs daily		Lifting plant screens at sewage plant at mafin mafin screens at chlorinator, lifting drums and decanting containers	Vusi Mahlaba	Yes	back trauma																
Taking samples at clarifiers and sewage	10	Dams, vessels, ponds	10	Drowning	Safety	Employees/contractors	3hrs daily	Deep water areas	Vusi Mahlaba	Yes	Fatality	Safety harnesses, flotation device, Safe work methods	2	2	IV	F											
Dosing lime at clarifiers and cooling water treatment	11	Inorganic dust	11	Skin irritation	Health	Employees	3hrs daily	Lime dust	Vusi Mahlaba	Yes	Skin irritation	Proper PPE, Training - Occ. Exposure, Medical surveillance	2	2	IV	F											
			11.1	Poisoning	Health	Employees	3hrs daily	Inhalation of lime dust	Vusi Mahlaba	Yes	Poisoning	Dust mask, Training - Occ. Exposure, Medical surveillance	2	2	IV	F											
Driving on and off road taking samples. Call outs.	12	Mechanical motion	12	Collision	Safety	Employees	3hrs daily		Vusi Mahlaba	Yes	Injuries and fatalities	Training - advanced driver, Driver monitoring program	2	2	IV	F											
Taking samples at outdoor and indoor plant.	13	Snakes, insects, bees	13	Biological agents	Safety	Employees	3hrs daily	Animal bites	Vusi Mahlaba	Yes	laceration wounds, viral infections, anaphylactic shock, inflammation	Training - snake handling, Awareness/communication, Remove animals, Emergency medical response, Veld dress	2	2	IV	F											
Taking and analysing samples at sewage water systems	14	sewage water	14	Biological agents	Health	Employees/contractors	3hrs daily	Contact with sewerage and chlorohe	Vusi Mahlaba	Yes	Infectious illnesses	Training - Occ. Exposure, Preventative medication, Medical surveillance, Respiratory protection, Hand protection	2	2	IV	F											
Taking samples in the station.	15	Restricted work space	14	Bumps and abrasions	Safety	Employees	3hrs daily	Exposed to station risks - pits, vessels and containers	Vusi Mahlaba	Yes	Bumps and abrasions	Isolation and permit, Training - confined space entry, Access restriction (LAR), Emergency response equipment	2	2	IV	F											
Bulk sulphuric storage and offloading	16	Corrosive liquids	16	Burns	Health	Employees/contractors	3hrs daily	Corrosive liquid	Vusi Mahlaba	No	Severe burn injuries skin eyes	Full protective suit, Respirator filter B/P3 Gloves Goggles, Job observations	3	3	II	F											
Bulk caustic soda storage and offloading	17	Corrosive liquids	16	Burns	Health	Employees/contractors	3hrs daily	Corrosive liquid	Vusi Mahlaba	No	Burns eye skin gastric respiratory	Goggles Apron Gloves Vapour & dust respirator	3	3	II	F											

Yes	Safety	1	1	F	I
No	Health	2	2	P	II
		3	3	I	III
		4	4	Ti	IV
		5	5	N	
		6			

