

Occupational Health and Safety Baseline risk as:											
Business/Operating unit:	PROJECT: FEEWATER AND BOILER CONTROL SYSTEM REVIEW								Department:		
Date:	2022/07/19							Prepared by:	Mahlitse Mathaila		
Refer to Occupational Health and Safety Risk assess											
List activity	Activity type (Routine/Non-routine)	Hazard nr	Hazard Identification	Risk Nr	Associated risk	Risk type	Cause(s) of the risk	Exposed group/employees	Risk Owner	Exposure patterns	What are the possible consequences?
List specific activities to be performed taking into consideration the equipment to be used, the personnel involved in the task.	Indicate R or N 1. Routine activities and situations create hazards through day-to-day operations and normal work activities; 2. Non-routine activities and situations are occasional or unplanned;	#	Anything with potential to cause of harm. <b>Note:</b> A hazard can pose more than one risk.	#	A chance that injury , ill health or damage could occur as a result of uncontrolled hazard.	Safety or health	What causes the risk to come into effect?	Who is exposed to the hazard i.e. visitors, members of the public, etc.	Who is accountable for making sure the controls and monitors are: - in place, - implemented, - regularly reviewed for effectiveness.	The frequency and duration the person/group is exposed to the hazard e.g. Daily for 3 hrs.	Consider the worse case scenario without controls?
Administration	R	1	Chair	1	Poor ergonomics/defective chairs	Health	Prolong sitting on the chair/defective chairs/ Chairs that are poor design	Projects employees,visitors	Projects employees, C&I Engineering Manager and contractor	8 Hours	musculoskeletal disorder,injuries due to falling,Improper sitting,
	R	2	Papers	2	Sharp edges of the paper	Safety	Handling of papers	Projects employees	Electrical maintenance manager and Schindler	Daily 3 hours	Cuts
	R	3	Computer usage	3	Glare	Health	working on the computer for a long time	Projects employees	Projects management	Daily 6 hours	Eye strains and headaches
	N	4	Cables on the walk way	4	Slips trips	Safety	Poor house keeping	Projects employees	Projects employees,visitors and contractors	1 hour	Injuries

	N	5	Gillotins	5	Unprotected sharp blade	Safety	cutting papers	Projects employees	Projects employees, C&I Engineering Manager and contractor	Once in 3 months	Cuts
<b>Disposal of office waste (paper, plastic, batteries etc)</b>	N	6	Ensuring that all office waste generated within Work Execution Period is properly disposed of	6	Pollution to environment	Safety	Disposal of office waste to a wrong place/bin	Projects employees	Projects employees, C&I Engineering Manager and contractor	daily for 3hrs	Pollution to the environment
<b>Fire in office area</b>	R	7	Possibility of a fire in the office area causing harm to personnel	7	Burns, injury, fatality, smoke inhalation,		Fire, smoke	Employees;Visitors and Contractors	Projects employees, C&I Engineering Manager and contractor	daily for 8hrs	burns, death, asphyxiation
<b>Using of the hydroboil</b>	R	8	Obtaining hot water from the hydroboil	8	Water Burns		Inproper use	Projects employees	Projects employees, C&I Engineering Manager and contractor	daily for 8hrs	burns
<b>Driving (ESKOM Business travelling) Home to Work</b>	R	13	Driving of vehicles on public roads	13	Vehicle accidents	Safety	Lack of driving skills, Fatigue, Poor road conditions and potholes	Projects employees	Projects employees, C&I Engineering Manager and contractor	Travelling daily as per business requiremets or home work home	Injury, Fatality
<b>Plant inspection</b>	N	16	Plant	9	Misaligned/Open trench/gratings and sluiceway covers	Safety	Walking ,crossing over defective and worn out covers during Inspections and investigations	Projects employees,visitors and contractors	Projects employees, C&I Engineering Manager and contractor	Weekly	Falling through resulting in injuries
	N	17	Noise	10	Exposure to noise	Health	Machinery in service, mobile equipment, plant processes, plant defects	Projects employees,visitors and contractors	Projects employees, C&I Engineering Manager and contractor	Weekly	Noise Induced Hearing Loss

	N	18	Unsecured equipment	11	Falling objects from height/above	Safety	Snapping of hand tools/components unsecured load, incorrect lifting technique, wear and tear, overloading, negligence, poor housekeeping, unsafe guarding	Projects employees,visitors and contractors	Projects employees, C&I Engineering Manager and contractor	Weekly	Injuries and property damage
	N	19	Poor house keeping	12	Slips trips and falls	Safety	Unattended defects,not enough space for storage,lack of supervision,inadequate waste bin, negligence	Projects employees,visitors and contractors	Projects employees, C&I Engineering Manager and contractor	Weekly	Injuries
	N	20	Dangerous gases	13	Inhalation of gas	Health	Exposure to fumes,burning rejects, spontaneous combustion, accidental release, explosion	Projects employees,visitors and contractors	Projects employees, C&I Engineering Manager and contractor	Weekly	asphyxiation, suffocation, irritation of respiratory tract, respiratory infection, fatality,
	N	21	Protruding objects	14	Trips and falls,cut by incidents, property damage	Safety	contact with protruding material, Lack of space, wear and tear, aging, improper scaffolding erection ,poor housekeeping, misalignment from cable racks	Projects employees,visitors and contractors	Projects employees, C&I Engineering Manager and contractor	Weekly	Injuries, cut by incidents, property damage, bruises
	R	22	Ascending and descending the Stairs	15	Slips trips and falls	Safety	Slippery,defective, unguarded stairs no hand rail, failure to maintain three point contact,skipping the steps of the stair case,gradient that is too steep,narrow steps	Projects employees,visitors and contractors	Maintenace manager and GMR 2	Weekly	Injuries
	N	23	Using the lift	16	stuck in the lift,placing hand between the door and the lift	Safety	Defective lift, overloading,	Projects employees,visitors and contractors	Electrical maintenance manager and Schindler	Weekly	Stress, Claustrophobia,injuries panic attack,suffocation
	N	28	Coal dust	17	Inhalation,ingestion, absorption and dust deposits on eye protection and	Health	Wind, coal spills, PF leaks, too fine,coal grade belts, excavator, lashing, cleaning,dust coming into the eyes during surveys/monitoring, inspections, investigation, wear and tear	Projects employees,visitors and contractors	Coal Manager, Operating Manager and Projets Manager	Weekly	Coal workers pneumoconiosis, silicosis, respiratory irritation and respiratory infections.







Existing Controls		Risk Priority Rating		Additional Controls or Tasks Aimed at improving Existing Controls	Monitoring Mechanisms	Control Owner	Legal and Other Requirements	Target Date	Current Status	Integrated Risk Management (IRM) reference number
Include: - <u>Preventative Controls</u> (controls implemented to eliminate hazards or reduce the likelihood of the risk occurring), and - <u>Reactive Controls</u> (controls implemented to reduce the immediate impact of the risk occurring)	Consequence	Likelihood	RCE Risk Control Effectiveness	Include: - <u>Preventative Controls</u> (controls implemented to eliminate hazards or reduce the likelihood of the risk occurring), and - <u>Reactive Controls</u> (controls implemented to reduce the immediate impact of the risk occurring)	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 not be changed	Pending, In Progress, Complete	Where applicable, add IRM system reference number for tracking of treatment actions.
<b>ENGINEERING CONTROLS:</b> - None <b>ADMINISTRATIVE CONTROLS:</b> Asset management, Ergonomic survey, Inspections, awareness <b>PPE:</b> -None	3	A	III	<b>ENGINEERING CONTROLS:</b> None <b>ADMINISTRATIVE CONTROLS:</b> Compliance to corporate standard <b>PPE:</b> None	Inspections and ergonomic survey	M.Mathaila	Eskom 32-95 Environmental, Health and Safety Incident Ma	Jul-22	No changes made	
<b>ENGINEERING CONTROLS:</b> - None <b>ADMINISTRATIVE CONTROLS:</b> Awareness, incident investigation <b>PPE:</b> -None	2	A	IV	<b>ENGINEERING CONTROLS:</b> - None <b>ADMINISTRATIVE CONTROLS:</b> Awareness, incident investigation <b>PPE:</b> -None	encourage reporting	M.Mathaila	32-95 Environmental, Health and Safety Incident Managem	Jul-22	No changes made	
<b>ENGINEERING CONTROLS:</b> -None <b>ADMINISTRATIVE CONTROLS:</b> Illumination Survey <b>PPE:</b> -None	3	B	III	<b>ENGINEERING CONTROLS:</b> Install anti glare screen <b>ADMINISTRATIVE CONTROL:</b> Safety Awareness <b>PPE:</b> None	Inspections	M.Mathaila	32-95 Environmental, Health and Safety Incident Managem	Jul-22	No changes made	
<b>ENGINEERING CONTROLS:</b> - Trunking method <b>ADMINISTRATIVE CONTROLS:</b> Awareness, raised a defect <b>PPE:</b> None	3	A	III	<b>ENGINEERING CONTROLS:</b> - None <b>ADMINISTRATIVE CONTROLS:</b> Awareness, raised a defect <b>PPE:</b> None	Inspections	M.Mathaila	OHS Act 85 of 1993 section 8,13,& 14, OHSAS 18001:2007, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 240-83529507 , Eskom 32-727 SHEQ Policy,	Jul-22	No changes made	

<b>ENGINEERING CONTROLS:</b> - Ensure that gillotines has a guard <b>ADMINISTRATIVE CONTROLS:</b> Inspections,Safety awareness on how to use gillotines,raised a defect <b>PPE:</b> -None	3	A	IV	Fully effective	<b>ENGINEERING CONTROLS:</b> - Ensure that gillotines has a guard <b>ADMINISTRATIVE CONTROLS:</b> Inspections,Safety awareness on how to use gillotines,raised a defect <b>PPE:</b> -None	Inspections	M.Mathaila	OHS Act 85 of 1993 section 8,13,& 14, OHSAS 18001:2007, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 240-83529507 , Eskom 32-727 SHEQ Policy,	Jul-22	No changes made	
<b>ENGINEERING CONTROLS:</b> None <b>ADMINISTRATION CONTROLS:</b> Waste management disposal. waste control sheet to be in place and updated;Supply sufficient bins for separation of waste (E.g. batteries, paper, domestic waste, plastic etc); bins cleaned out daily by cleaning staff	3	B	III	Mostly effective	<b>ENGINEERING CONTROLS:</b> None <b>ADMINISTRATION CONTROLS:</b> Educate all staff in the separation of waste, Discussion during SHE talks, <b>PPE:</b> None	Inspection	M.Mathaila	OHS Act 85 of 1993, SANS 10083:2013, OHSAS 18001:2007, Eskom 32-425 Procedure, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 240-83529507 Eskom 32-727 SHEQ Policy, Arnot	Jul-22	No changes made	
<b>ENGINEERING CONTROLS:</b> Muster and evacuation exercises, fire detection in offices, audible fire alarms, earth leakage on electrical boards, no smoking in buildings. <b>ADMINISTRATIVE CONTROLS:</b> Regular inspections of electrical equipment , SHE rep monthly inspections. <b>PROGRAMME:</b> SHE induction, fire extinguisher training, fire muster exercise by Fire	3	B	III	Mostly effective	Switch off all non essential electrical equipment when leaving offices	Regular inspections of electrical equipment	All	OHS Act 85 of 1993, Noise Induced Hearing Loss Regulations, Driven Machinery Regulations, 1988, General Machinery Regulations,1988, SANS 10083:2013, OHSAS 18001:2007, Eskom 32-425 Hearing Conservation Programme/Procedure, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 240-83529507 Standard on Medical Surveillance on Noise, Eskom 32-727 SHEQ Policy, Arnot "SHE" Statement Rev 2: (2015 -2016)	Jul-22	Completed no revised date	
<b>ENGINEERING CONTROLS:</b> None <b>ADMINISTRATION CONTROLS:</b> Take note of the safety instruction on the hydroboil. PM's raised to track previous incidents and situational awareness. <b>PPE :</b> None	3	B	III	Mostly effective	Inspections,Safety awareness on how to use gillotines,raised a defect <b>PPE:</b> None	Inspections	M.Mathaila	OHS Act 85 of 1993, Noise Induced Hearing Loss Regulations, Driven Machinery Regulations, 1988, General Machinery Regulations,1988, SANS 10083:2013, OHSAS 18001:2007, Eskom 32-425 Hearing Conservation Programme/Procedure, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 240-83529507 Standard on Medical Surveillance on Noise, Eskom 32-727 SHEQ Policy, Arnot "SHE" Statement Rev 2: (2015 -2016)	Jul-22	No changes made	
<b>ENGINEERING CONTROLS:</b> None <b>ADMINISTRATION CONTROLS:</b> Risk Assessment, 32-421 (Life saving rules Rules), 32-93 (Vehicle and Driver safety management), 32-456 (Vehicle specifications). Staff driving vehicles to have national driver's license and Eskom driver's evaluation permit. vehicles in	6	B	II	Mostly ineffective	Defensive and advance driving skills. Continuous driving and safety awareness. Reduce speed to 70km/hr or slower with the current road condition.	Inspections	M.Mathaila	OHS Act 85 of 1993, Noise Induced Hearing Loss Regulations, Driven Machinery Regulations, 1988, General Machinery Regulations,1988, SANS 10083:2013, OHSAS 18001:2007, Eskom 32-425 Hearing Conservation Programme/Procedure, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 240-83529507 Standard on Medical Surveillance on Noise, Eskom 32-727 SHEQ Policy, Arnot "SHE" Statement Rev 2: (2015 -2016)	Jul-22	No changes made	
<b>ENGINEERING CONTROLS:</b> Routine maintenance <b>ADMINISTRATIVE CONTROLS:</b> Raise defect,safety awareness <b>PPE:</b> Safety shoes,Hard hat,	4	C	II	Mostly ineffective	<b>ENGINEERING CONTROLS:</b> Colour coding on high pressure system <b>ADMINISTRATIVE CONTROLS:</b> Precautionary and notices safety signs <b>PPE :</b> None	Incident Statistics,condition of plant during inspection	M.Mathaila	OHS Act 85 of 1993, OHSAS 18001:2007, , Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 32-727 SHEQ Policy,	Jul-22	No changes made	
<b>ENGINEERING CONTROLS:</b> - Silencer installation, greasing of rotating equipment, <b>ADMINISTRATIVE CONTROLS:</b> - Noise monitoring once in two year and on adhoc basis - Periodic Medical Surveillance (Audiometric testing) as per the Hearing Conservation Programme requirements <b>PPE:</b> -	3	B	III	Mostly effective	<b>ENGINEERING CONTROLS:</b> substitution of noisy equipment during maintenance <b>ADMINISTRATIVE CONTROLS:</b> Identification of defective plant equipment which causes high noise and maintenance of the plant equipment thereof , zoning of area <b>PPE:</b> None	Inspections by the supervisor, employees feedback and Noise monitoring	Projects Manager, SRM Manager, Environmental Manager and Materials Manger	OHS Act 85 of 1993, Noise Induced Hearing Loss Regulations, Driven Machinery Regulations, 1988, General Machinery Regulations,1988, SANS 10083:2013, OHSAS 18001:2007, Eskom 32-425 Hearing Conservation Programme/Procedure, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 240-83529507 Standard on Medical Surveillance on Noise, Eskom 32-727 SHEQ Policy, Arnot "SHE" Statement Rev 2: (2015 -2016)	Jul-22	No changes made	

<b>ENGINEERING CONTROLS:</b> - Design of storage areas ,Secure tools and equipment <b>ADMINISTRATIVE CONTROLS:</b> - Adherence to stacking and storage procedure, awareness, inspections, <b>PPE:</b> - Head protection with chin strap,safety shoes	3	C	II	Mostly ineffective	<b>ENGINEERING CONTROLS:</b> - Secure protruding equipment <b>ADMINISTRATIVE CONTROLS:</b> - Auditing, routine inspections, awareness <b>PPE:</b> - None	Observation and inspection, incidents statistics, investigations	M.Mathaila	OHS Act 85 of 1993, General Safety Regulations,OHSAS 18001:2007, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 32-727 SHEQ Policy	Jul-22	No changes made
<b>ENGINEERING CONTROLS:</b> - None <b>ADMINISTRATIVE CONTROLS:</b> - barricading, access control <b>PPE:</b> - Head protection with chin strap, safety boots	3	C	II	Mostly ineffective	<b>ENGINEERING CONTROLS:</b> - None <b>ADMINISTRATIVE CONTROLS:</b> - Audits, observation, plant walk,toolbox talk <b>PPE:</b> - Overallis	Good housekeeping and plant walk, statistics, audit findings	M.Mathaila	OHS Act 85 of 1993, OHSAS 18001:2007, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, SHEQ Policy, NEMA, Emergency preparednes	Jul-22	No changes made
<b>ENGINEERING CONTROLS:</b> - chaining of cylinders in upright position, gas detectors mechanism, ventilation process, pipeline <b>ADMINISTRATIVE CONTROLS:</b> - Plant maintenance, gas monitoring, signage, access control, alarm response, calibration of sensors	6	B	II	Mostly ineffective	<b>ENGINEERING CONTROLS:</b> Emissions control <b>ADMINISTRATIVE CONTROLS:</b> Evacuation drills, MHI inspection <b>PPE:</b> - none	MHI audit results, gas test results and verification.	M.Mathaila	OHS Act 85 of 1993, OHSAS 18001:2007, , Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 240-83529507 Standard on Medical Surveillance Eskom 32-727 SHEQ Policy, Amot "	Jul-22	No changes made
<b>ENGINEERING CONTROLS:</b> cabling technique <b>ADMINISTRATIVE CONTROLS:</b> - loading defects, barricading, signages,housekeeping inspection <b>PPE:</b> - Head protection with chin strap, safety boots	3	B	III	Mostly effective	<b>ENGINEERING CONTROLS:</b> None <b>ADMINISTRATIVE CONTROLS:</b> - Housekeeping inspection,toolbox talk and awareness <b>PPE:</b> None	Inspections and observation	M.Mathaila	OHS Act 85 of 1993, Noise Induced Hearing Loss Regulations, Driven Machinery Regulations, 1988, General Machinery Regulations,1988, SANS 10083:2013, OHSAS 18001:2007, Eskom 32-425 Hearing Conservation Progrmme/Procedure, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, Eskom 240-83529507 Standard on Medical Surveillance on Noise, Eskom 32-727 SHEQ Policy, Amot "SHE" Statement Rev 2: (2015 -2016)	Jul-22	No changes made
<b>ENGINEERING CONTROLS:</b> SANS Standards.Engineering request,grating step <b>ADMINISTRATIVE CONTROLS:</b> Painting of the hand rail, awareness, 3 point contact <b>PPE:</b> - Head protection with chin strap, oil resistant safety boots hand	4	C	II	Mostly ineffective	<b>ENGINEERING CONTROLS:</b> None <b>ADMINISTRATIVE CONTROLS:</b> Defect system,routine maintenance <b>PPE:</b> None	SMAT/STOP observation,audits, planned inspections	M.Mathaila	OHS Act 85 of 1993, OHSAS 18001:2007, Eskom 32-95 Environmental, Health and Safety Incident Management Procedure, , Eskom 32-727 SHEQ Policy, Safety induction, General safety regulation,SANS standard,facilities regulation	Jul-22	No changes made
<b>ENGINEERING CONTROLS:</b> Lift escalator Standards <b>ADMINISTRATIVE CONTROLS:</b> Routine maintenance, defect system, <b>PPE:</b> - None	3	B	III	Mostly effective	<b>ENGINEERING CONTROLS:</b> None <b>ADMINISTRATIVE CONTROLS:</b> Awareness, notice during usage, signage, induction <b>PPE:</b> - None	Routine Services Maintenance,PM system by Operating	M.Mathaila	OHS Act 85 of 1993, lift escalator and conveyor regulation, construction regulation, OHSAS 18001:2007, Eskom 32-95, Health and Safety Incident Management Procedure, Eskom 32-727 SHEQ Policy.	Jul-22	No changes made
<b>ENGINEERING CONTROLS:</b> - Wetting and compressing of the coal at the coal stock yard, <b>ADMINISTRATIVE CONTROLS:</b> coal, signages, defect, quality coal sampling, - Dust monitoring once per year and or on adhoc basis <b>PPE:</b> - 2 Piece overall - Disposable particulate respirator	3	B	III	Mostly effective	<b>ENGINEERING CONTROLS:</b> Ventilation, extraction fans, blending of coal <b>ADMINISTRATIVE CONTROLS:</b> Raise defect so that the leaks could be repair, awareness <b>PPE:</b> None	Visual inspections, employees feedback and dust monitoring results, plant performance, incidents	Coal Manager, Operating Manager and Projects Manager	OHS Act 85 of 1993, Hzardous Chemical Substances Regulations, Regulations, Lifts escalator conveyor Regulations, NIOSH 7602 Eskom 32-95 Environmental, Health and Safety Incident Management Procedure 32-727 SHEQ Policy, NEMA	Jul-22	No changes made







Consequences	6	III	II	I	I	I
	5	III	II	II	I	I
	4	IV	III	II	I	I
	3	IV	III	II	II	I
	2	IV	IV	III	II	II

R	Safety	1	A	Fully effective	I
N	Health	2	B	Mostly effective	II
		3	C	Mostly ineffective	III
		4	D	None	IV
		5	E		
		6			

	1	IV	IV	III	III	III
		Likelihood				



