

Occupational Health and Safety Baseline risk assessment template												
Business/Operating unit:	Kendal Power Station								Next Review Date (every 2 years):	Template identifier:		
	Date: 17-May-23				Authorised by:	Name: Pieter Meiring		Document identifier			5	
						Designation: Senior Technician						Revision number:
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Refer to Occupational Health and Safety Risk assessment procedure 32-520												
List activity	Hazard Identification	Associated risk	Risk type	What are the possible consequences?	Existing Controls			Risk Priority Rating	RCE Risk Control Effectiveness	Control Owner	Legal and Other Requirements	
						Consequence	Likelihood					
List specific activities to be performed taking into consideration the equipment to be used, the personnel involved in the task.	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	Consider the worse case scenario without controls?	Include: - <b>Preventative Controls</b> (controls implemented to eliminate hazards or reduce the likelihood of the risk occurring), and - <b>Reactive Controls</b> (controls implemented to reduce the immediate impact of the risk occurring)  <b>Elimination</b> <b>Substitution</b> <b>Engineering controls</b> <b>Administrative controls</b> <b>Personal protective equipment (PPE)</b>						Where relevant, list the relevant legislative and or Eskom requirements that prescribe the control.	
Plant walk downs (QC plant check versus drawings)	Noise	Exposure to excessive high noise levels	Health	Noise Induced Hearing Loss	Plant is demarcated as a noise zone. Hazard awareness, medical surveillance, Noise Survey ,PPE - hearing protection is provided and used.	4	B	II	Mostly effective	Manager	OHSAct sec 8, 13, Noise Induced Hearing loss Regulations, SANS 10083	
	Ash dust	Exposed to excessive ash dust	Health	Respiratory and lung infections	Plant maintenance,Raise defect for Ash leaks Provision of PPE Toolbox talks for work in these areas Be vigilant - avoid the area when there is excessive dust, Medical screening	3	A	III	Mostly effective	Manager	OHSAct sec 13, Hazardous Chemical Agent Regulations, Annexure 1.36	
		Exposed to excessive ash dust	Health	Eye irritation	Plant maintenance,Raise defect for Ash leaks Provision of PPE Toolbox talks for work in these areas Be vigilant - avoid the area when there is excessive dust	3	A	IV	Mostly effective	Manager	OHSAct sec 13, Hazardous Chemical Agent Regulations, Annexure 1.36	
	Coal dust	Lung infection that could result with silicosis, eye infection, nasal infection, skin infection	Health	Lung infection that could result with silicosis, eye infection, nasal infection, skin infection	Plant maintenance,Raise defects for excessive coal dust Provision of PPE, FFP2 or 3 dust mask Toolbox talks for work in these areas Be vigilant - avoid the area when there is excessive dust	3	A	IV	Mostly effective	Manager	OHSAct sec 13, Regulations for HCS Annexure 1.36	
	Chemicals (S, SO <sub>2</sub> , H <sub>2</sub> SO <sub>4</sub> , NaOH, NH <sub>3</sub> , Cl <sub>2</sub> , etc.)	Exposure to excessive chemicals	Health	Respiratory infections that can result in lung diseases. Chemical burns	Provision and use of PPE, repair the leak Demarcated the area and attach warning signs Raise defects for leaks or dangerous situations Toolbox talks for work in these areas Be vigilant - avoid the area when there are visible leaks Lagging and cladding on pipes. Water is provided for employees. They also take regular breaks while in the area. Two man rule is applied when on the plant. . Employees spent short periods on the plant.	3	A	IV	Mostly effective	Manager	OHSAct, Regulations for HCS	
	Heat	Excessive sweating, cramps, dehydration, heat exhaustion and heatstroke.	Health	Excessive sweating, cramps, dehydration, heat exhaustion and heatstroke.		4	A	II	Mostly effective	Manager	OHSAct sec 13 . PSR ERW reg2	
	Steam and heat	Burns injuries	Safety	Burns injuries	The plant insulated , planned maintenance system. Steam leaks are attended as per defect that were reported. Baricading and notices. PPE, Long sleeved clothing is worn.	5	B	II	Mostly effective	Manager	OHSAct sec8, 13, General Safety Regulations, 2B, General Machinery Regulations , Environmental Regulations in workplaces Reg 5, PSR	
	Heights	Falling which leads to multiple injuries or fatality	Safety	Falling which leads to multiple injuries or fatality	Provision of PPE and training as and when the need arise	5	B	I	Mostly effective	Manager	OHS Act, General Safety Regulation S6	
	Falling objects	Getting struck by objects	Safety	injuries and/or fatality.	Hazard awareness, planning and coordination of activities, barricading of areas where there is a potential of falling objects. Personal protective equipment is provided, including hard hat	5	B	I	Mostly effective	Manager	OHS act sec 13, Environmental Regulations for workplace reg6, General Safety Regulations 2B	
	Moving machinery	Caught between moving machinery	Safety	injuries and/or fatality.	PSR/ LAR, Machine guards on equipment. Plant maintenance notices and signages. Hazard awareness,Loose clothing is discouraged while on the plant.	5	B	I	Mostly effective	Manager	OHSAct sec8, 13, General Safety Regulations, 2B, General Machinery Regulations , Driven Machinery Regulations	
	Moving Machinery (mobile plant)	Getting struck by moving vehicles	Safety	Getting struck by moving vehicles resulting in injuries.	Rules of the road (observing and be visible) Be vigilant towards your environment particularly areas where machinery operates	4	B	II	Mostly effective	Manager	OHSAct 8,13 , General Safety Regulation 5	
	Insufficient lighting	Slips, trips and knocking against structure	Safety	injuries	Maintenance contract for lighting. Special/Temporary lighting is provided.	4	B	II	Mostly effective	Manager	OHS Act, Environmental Regulations in workplaces Reg 3 , SANS 10114	
	Uneven walking surfaces	Slips, trips, falls	Safety	Slips, trips, falls resulting in injury	PPE (Safety Shoes) Toolbox talk Defect hazardous conditions Be vigilant toward your environment particularly walkways	4	B	II	Mostly effective	Manager	OHS Act sec 13, Environmental Regulations in workplaces Reg 6	
Fitting KKS labels on plant	Noise	Exposure to excessive/ high noise levels	Health	Noise Induced Hearing Loss	Plant is demarcated as a noise zone. Hazard awareness, medical surveillance, Noise Survey ,PPE - hearing protection is provided and used.	4	B	II	Mostly effective	Manager	OHSAct sec 8, 13, Noise Induced Hearing loss Regulations, SANS 10083	
	Ash Dust	Respiratory infections and/or eye irritation	Health	Respiratory infections and/or eye irritation	The plant is on a regular planned maintenance. Plant is washed with water to reduce the level of coal dust on the plant. Employees are exposed for short periods. FFP2 Dust masks are provided.	4	B	II	Mostly effective	Manager	OHSAct sec 13, Hazardous Chemical Agent Regulations, Annexure 1.36	
	Coal dust	Lung infection that could result with silicosis, eye infection, nasal infection, skin infection	Health	Exposure to excessive coal dust because of leaks. Not using correct PPE	Plant maintenance,Raise defects for excessive coal dust Provision of PPE, FFP2 or 3 dust mask Toolbox talks for work in these areas Be vigilant - avoid the area when there is excessive dust	3	A	IV	Mostly effective	Manager	OHSAct, Regulations for HCS	
	Chemicals (S, SO <sub>2</sub> , H <sub>2</sub> SO <sub>4</sub> , NaOH, NH <sub>3</sub> , Cl <sub>2</sub> , etc.)	Respiratory infections that can result in lung diseases. Chemical burns	Health	Chemicals' leaks. Not using correct PPE (inhalation and skin contact to chemicals)	Provision of PPE and me Demarcate the are and attach the warning signs Raise defects for leaks or dangerous situations Toolbox talks for work in these areas Be vigilant - avoid the area when there are visible leaks	3	A	IV	Mostly effective	Manager	OHSAct, Regulations for HCS	
	Heat	Heat stress (Dehydration, exhaustion, cramps, heatstroke etc.)	Health	Steam leaks and radiation of heat from the plant. Not taking rest periods Inadequate fluid consumption Electricity generating process - causing heat	Drinking of liquids and taking breaks	3	B	IV	Mostly effective	Manager	OHSAct, Regulations for HCS	
	Steam and heat	Burns injuries	Safety	Burns injuries	The plant insulated , planned maintenance system. Steam leaks are attended as per defect that were reported. Baricading and notices. PPE, Long sleeved clothing is worn.	5	B	II	Mostly effective	Manager	OHSAct sec8, 13, General Safety Regulations, 2B, General Machinery Regulations , Environmental Regulations in workplaces Reg 5, PSR	
	Working at heights	Falling	Safety	injuries or fatality	Provision of PPE and training as and when the need arise	5	B	I	Mostly effective	Manager	OHSAct, ERW3	
	Falling objects	Getting struck by objects	Safety	injuries and/or fatality.	Hazard awareness, planning and coordination of activities, barricading of areas where there is a potential of falling objects. Personal protective equipment is provided, including hard hat	5	B	I	Mostly effective	Manager	OHS act sec 13, Environmental Regulations for workplace reg6, General Safety Regulations 2B	
	Moving machinery	Caught between moving machinery	Safety	injuries and/or fatality.	PSR/ LAR, Machine guards on equipment. Plant maintenance notices and signages. Hazard awareness,Loose clothing is discouraged while on the plant.	5	B	I	Mostly effective	Manager	OHSAct sec8, 13, General Safety Regulations, 2B, General Machinery Regulations , Driven Machinery Regulations	
	Moving Machinery (mobile plant)	Getting struck by moving vehicles resulting in injuries.	Safety	injuries and/or fatality.	Rules of the road (observing and be visible) Be vigilant towards your environment particularly areas where machinery operates	5	B	I	Mostly effective	Manager	OHS Act sec 13, General machinery regulations, PSR	
	Insufficient lighting	Slips, trips and knocking against structures because of poor visibility that will result in injuries.	Safety	injuries or fatality	Maintenance contract for lighting. Special/Temporary lighting is provided.	5	B	I	Mostly effective	Manager	OHSAct, Environmental Regulations for workplace S3	
	Poor/uneven walking surfaces	Slips, trips, falls	Safety	injuries	PPE (Safety Shoes) Toolbox talk Defect hazardous conditions Be vigilant toward your environment particularly walkways	4	B	II	Mostly effective	Manager	OHS Act sec 13, Environmental Regulations in workplaces Reg 6	
	Sharp edges of the KKS labels	Cuts	Safety	injuries	PPE Toolbox talk Job observations Pay attention when handling labels especially Chromadeck	2	B	IV	Mostly effective	Manager	OHSAct 8, 13, GSR2	
Performing Office, Computer and administrative activities	Use of tools (drills, pliers, screwdrivers, silicone gun)	Injuries	Safety	Wrong design of tools. Not using correct PPE Not following procedures	PPE Toolbox talk Job observations Pay attention when handling tools	2	B	IV	Mostly effective	Manager	OHS Act sec 13, Environmental Regulations in workplaces Reg 6	
	Adhesives (silicone & Sikaflex)	Allergic skin reaction Allergic or asthma symptoms or breathing difficulty	Health	Not using gloves when handling the chemical. (hands) Using the chemical in unventilated area Not adhering to user instruction of products	Gloves are provided. Toolbox talks are held. Use chemical in a well ventilated area Training i.e., use of product and MSDS	3	B	II	Mostly effective	Manager	OHSAct ,HCS Annexure 1,36	
	Objects,materials, structure	Tripping and falling, struck against objects, material, structures	Safety	Injuries	Hazard Awareness, Safety Rep inspection, daily cleaning of offices and classrooms , Good Housekeeping practices encouraged	3	B	II	Mostly effective	Manager	OHS Act, Environmental Regulations in workplaces Reg 6	
	Slippery surfaces	Slips and falls	Safety	Injuries	Some floors are carpeted. WorkplaceSHE rep inspection, Hazard awareness, good house keeping practices/ immediate cleaning of wet floors, floor slippery warning signs posted.	4	B	II	Mostly effective	Manager	OHS Act, Environmental Regulations in workplaces Reg 6	
	Ergonomics	Working on the computer for extended period ( physical and cognitive ergonomics)	Health	Musculoskeletal disorder : Muscle sprains and strains resulting in back, neck, wrist pains and/or shoulder pains. Mental fatigue. Eye strain. Stress. Anxiety Absenteeism increase	Adjustable Chairs with armrestsand back supports are provided, Awareness on ergonomics. Rest when necessary or take a walk or stretch. New computers are adjustable for lighting requirements.Ergonomics surveys & Medical surveillance,	3	B	II	Mostly effective	Manager	OHS Act, Environmental Regulations in workplaces, Ergonomics regulations 2019	
	Poor Illumination	exposure to poorly illuminated work area	Health	Eye strains and headache	The lights are on a maintenance system. Take regular breaks. SHE Rep inspections	3	B	II	Mostly effective	Manager	OHS Act, Environmental Regulations in workplaces Reg 3 , SANS 10114	
	Poor indoor air quality	Unfavourable low and high temperatures	Health	Shivering, cold and flu. Sweating and drowsiness,Headaches, drowsiness, blocked noses.	Air conditioning system provided and maintained. Hazard Awareness, SHE rep inspections	3	B	II	Mostly effective	Manager	OHS Act, Environmental Regulations in workplaces Reg 5	
	Electrical cords.	Tripping and falling over loose lying cords, Electric shock	Safety	Tripping and falls that could result in injuries. electrocution due to electrical contact.	Channel cables away from walkways. Conduct regular safety inspections. Provided awareness and warning signs are posted. Load defect to report and requestmaintenance / repairs for any defective cables .	3	B	II	Mostly effective	Manager	OHS Act, Environmental Regulations in workplaces Reg 6, electrical machinery regulations	
	Electrical appliances like photo copy machines, shredder, microwave and others.	Contact with faulty unearthed equipment, open wires and connections, use of defective equipment	Safety	Electrocution that will result in burns	Planned Maintenance system. Safety inspections, hazards awareness training , Signs and posters display. Reporting and defect system	3	B	II	Mostly effective	Manager	OHS Act, Environmental Regulations in workplaces Reg 6, electrical machinery regulations	
	Paper	Cuts from sharp edges of the paper	Safety	cuts/injuries	Hazard awareness	2	B	IV	Mostly effective	Manager	OHS Act, Environmental Regulations in workplaces Reg 6	
	Driving, travelling to and from work	Road conditions curves, road construction, road works, bends, steep heels, rail crossings	Unfavourable road conditions , curves, road construction, road works, bends, steep heels, rail crossings causing loss of control of the vehicle	Safety	Vehicle accidents which will result in multiple injuries and/or fatalities as well as property damage.	Awareness during SHEQ meetings/ tool box talks/ lessons learned/ road safety campaigns/ Driver risk evaluation/Defensive & advance driving training. Pre inspections, Trip Risk Assessment	6	B	I	Mostly effective	Manager	Road traffic act, OHS Act, Vehicle Safety 240- 69946.
		Weather conditions , Mist/Fog/heavy rain	Unfavourable weather conditions due to Mist/Fog/heavy rain	Safety	Vehicle accidents which will result in multiple injuries and/or fatalities as well as property damage.	Awareness during SHEQ meetings/ tool box talks/ lessons learned/ road safety campaigns/ Driver risk evaluation/Defensive & advance driving training. wait up until the mist is clear. Use alternative routes.	6	B	I	Mostly effective	Manager	Road traffic act, OHS Act, Vehicle Safety 240- 69946.
		Road users, pedestrians and/or stray animals	Unfit road users , vehicles Colliding with pedestrians and/or stray animals	Safety	Collision that result in accidents with multiple injuries and/or fatalities.	Awareness during SHEQ meetings/ tool box talks/ lessons learned/ road safety campaigns/ Driver risk evaluation/Defensive & advance driving training	6	B	I	Mostly effective	Manager	Road traffic act, OHS Act, Vehicle Safety 240- 69946
Driving vehicle while tired		Fatigue that result in accidents. These may result in injuries and/or fatalities.	Safety	Fatigue that result in accidents. These may result in injuries and/or fatalities.	Awareness during SHEQ meetings/ tool box talks/ lessons learned/ road safety campaigns/ Defensive & advance driving training	6	B	I	Mostly effective	Manager	Road traffic act, OHS Act, Vehicle Safety 240- 69946, LSR	
Performing engineering services at D&S in plant and office (expectant mothers)	Physical	Exposure to phisical stressors	Health	Loss of pregnancy , foetal abnormalities ,physical ,emotional and psychological strain on the mother	Code of Good Practice on the Protection of Employees During Pregnancy and After the Birth of a Child ,hazard and awareness communication to employees	5	B	I	Mostly effective	Manager	BCEA,ESKOM COS, CODE OF GOOD PRACTICE,OSHACT	
	Ergonomical	exposure to ergonomical stressors	Health	Loss of pregnancy , foetal abnormalities,physical ,emotional and psychological strain on the mother	Code of Good Practice on the Protection of Employees During Pregnancy and After the Birth of a Child ,hazard and awareness communication to employees	5	B	I	Mostly effective	Manager	BCEA,ESKOM COS, CODE OF GOOD PRACTICE,OSHACT	
	Chemicals	Exposure to chemical stressors	Health	Loss of pregnancy , foetal abnormalities,physical ,emotional and psychological strain on the mother	Code of Good Practice on the Protection of Employees During Pregnancy and After the Birth of a Child ,hazard and awareness communication to employees	5	B	I	Mostly effective	Manager	BCEA,ESKOM COS, CODE OF GOOD PRACTICE,OSHACT	
	Biological	Exposure to biological stressors	Health	Loss of pregnancy , foetal abnormalities,physical ,emotional and psychological strain on the mother	Code of Good Practice on the Protection of Employees During Pregnancy and After the Birth of a Child ,hazard and awareness communication to employees	5	B	I	Mostly effective	Manager	BCEA,ESKOM COS, CODE OF GOOD PRACTICE,OSHACT	
	Breastfeeding	Exposure to chemical stressors	Health	Impair health and development of the child	Code of Good Practice on the Protection of Employees During Pregnancy and After the Birth of a Child ,PPE and good hygiene practices	5	B	I	Mostly effective	Manager	BCEA,ESKOM COS, CODE OF GOOD PRACTICE,OSHACT	
Performing engineering services at D&S in plant and office	Human factors ( work load, stress, long working hours, lack of resources, Horseplay)	Incorrect scoping ,increase number of plant failure, injuries, absenteeism, ill health	Health and safety	Injuries ,plant failures ,plant damages	Recutment process ,talent board ,on job training ,JDP , Health and wellnes Awareness, Employee assistant programme , Supervision , Work team sessions,	3	B	II	Mostly effective	Manager	COS, CODE OF GOOD PRACTICE,OSHACT	
	Human factors ( sexual harassment, victimisation, verbal abuse, assault)	low employee moral, incidents, absenteeism, ill - health	Health and safety	Injuries, Mental illness	BCOE acts, Eskom values, Eskom SHEQ policy, Hazard awareness, employee assistant programme , Supervision , Work team sessions,	3	D	I	Mostly effective	Manager	COS, CODE OF GOOD PRACTICE,OSHACT	
	Covid19	Coming into contact with the infected person	Health	Sick and Fatalities	Toolbox talk to be done, Awareness, Adhere to covid 19 precaution, Good housekeeping to be maintained, Correct PPE to be worn (Mask),Encourage employees to vaccinate	6	A	I	Mostly effective	Manager	OHSAct, Regulations for HCS and ISO 45001:2018	