Occupational Health and Safety Baseline risk assessment template

Business/Operating unit:	Arnot Power Station	**Project/Department:**	Coal Gate Surveillance and Access Control Project	**Next Review Date (every 2 years):**	Aug-21
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Refer to Occupational Health and Safety Risk assessment procedure 32-520

List activity	Activity type (Routine/Non-routine)	Hazard nr	Hazard Identification	Risk Nr	Associated risk	Risk type	Cause(s) of the risk	Exposed groups/employees	Risk Owner	Exposure patterns	What are the possible consequences?	Existing Controls	Consequence	Likelihood	Risk Priority Rating	RCE Risk Control Effectiveness	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
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. **Note:** 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?	Include: Preventative Controls (controls implemented to eliminate hazards or reduce the likelihood of the risk occurring), and Reactive Controls (controls implemented to reduce the immediate impact of the risk occurring) **Elimination** **Substitution** **Engineering controls** **Administrative controls** **Personal protective equipment (PPE)**					Include: Preventative Controls (controls implemented to eliminate hazards or reduce the likelihood of the risk occurring), and Reactive Controls (controls implemented to reduce the immediate impact of the risk occurring) **Elimination** **Substitution** **Engineering controls** **Administrative controls** **Personal protective equipment (PPE)**	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.
Coal gate Surveillance and access control	R	1	**Dust**	1.1	Inhalation of coal dust	Health	Wind, trucks entering the coal stock yard, running of the conveyor belts, caterpillars, tructors, scrubbers and water tankers	Contractor Employees and Visitos	Contractor Site manager	Daily- 8 -12 hrs	Respiratory irritation, respiratory infections, coal workers pneumoconiosis, silicosis,	Suppressing dust with water tanker and compressing of the coal, correct use of the disposable dust mask and Periodic Medical Surveillance (Lung function test) - Disposable respirator FFP2	3	A	IV	Fully Effective	Dust monitoring once per year and awareness on the effect of coal dust	Inspections, observations	Contractor Site Manager and Eskom project leader	OH&S Act 85 of 1993, ISO 45001:2018, SHEQ Policy			
	R			1.2	Dust coming into contact with eyes	Health	Movement of heavy vehicle and yellow plant, weather condition e.g wind	Contractor Employees and Visitos	Contractor Site manager	Daily- 8 -12 hrs	Poor visibility of environment, collide with, injuries, fatality	- Suppressing dust with tankers: Dust monitoring once per year and or on adhoc basi, Disposable respirator FFP2 and Eye protection	3	A	IV	Fully Effective	Mke sure employees are issued with eye protection that are sealing	Visual inspections by the supervisor, employees feedback and dust monitoring	Coal stock Yard Manager, Coal Manager, Safety Risk Management	OHS Act 85 of 1993; Regulations for Hasrcardous Chemical Substances Regulations,1995 framed under OHS Act 85 of 1993; Eskom SHEQ Policy			
	R	2	**Noise**	2.1	Exposure to high noise level	Health	Trucks entering the coal stock yard, running of the conveyor belts, caterpillars, tructors, scrubbers, water tankers, idling of the vehicles at the coal stock yard work shop or area and environmental noise caused by the station safety valves etc	Contractor Employees and Visitos	Contractor Site manager	Daily- 8 -12 hrs	Noise Induced Hearing Loss	- Greasing and repairing of equipment contributing to high noise and monitoring once in two year and on adhoc basis - Periodic Medical Surveillance (Audiometric testing) as per the Hearing Conservation Programme requirements	3	A	IV	Fully Effective	Employees were made aware of the effect of noise	Inspections, observations	Coal stock Yard Manager, Coal Manager, Safety Risk Management	OHS Act 85 of 1993; Regulations for Hasrcardous Chemical Substances Regulations,1995 framed under OHS Act 85 of 1993; Eskom SHEQ Policy			
	R			2.2	Equipment emitting noise equal to 85 d B(A) or above while busy with construction	Safety	Trucks entering the coal stock yard, running of the conveyor belts, caterpillars, tructors, scrubbers, water tankers, idling of the vehicles at the coal stock yard work shop or area and environmental noise caused by the station safety valves etc	Contractor Employees and Visitos	Contractor Site manager	12 Hours daily	Noise interfere with communications, make warnings harder to hear, reduces people's awareness of their surroundings, lead to safety risks – putting people at risk of injury or death	- Greasing and repairing of equipment contributing for high noise - Employees have received awareness training on the effects of noise, continously receive awareness training in the form of toolbox talks and how to wear the	2	B	IV	Fully Effective	- Restricting worker presence to a suitable distance away from noisy equipment - Increasing the distance between the noise source and the worker	Inspections, observations	Coal stock Yard Manager, Coal Manager, Safety Risk Management	OHS Act 85 of 1993; Regulations for Hasrcardous Chemical Substances Regulations,1995 framed under OHS Act 85 of 1993; Eskom SHEQ Policy			
	R	3	**Heat**	3.1	Environmental Temperatures above 30 W BGT (Exposure to high temperatures outside environment summer season to the sun ray/sun outside)	Health	Outside hot environment temperatures increased by summer conditions/Ultra Violet, during area inspections, observations, investigations and surveys or monitoring	Contractor Employees and Visitos	Contractor Site manager	3 to 6 hours	Sun burns, skin cancer, heat cramps, heat exhaustion, heat stroke and death	Employees have received training on the effects of heat, no tight clothing to be worn while working in the hot environmentexposed to sun light and workers to partake to at least 602ml of water every hour, - Heat stress monitoring and	2	B	IV	Fully Effective	- Provide workers with Rehidrat and to partake to it at least every hour - Allow regular breaks in a cool place - Hard hats with side to back brims or hats with brims	Inspections, observations	Coal stock Yard Manager, Coal Manager, Safety Risk Management	OHS Act 85 of 1993; Regulations for Hasrcardous Chemical Substances Regulations,1995 framed under OHS Act 85 of 1993; Eskom SHEQ Policy			
	R			3.2	Environmental Temperatures above 30 W BGT (Exposure to high temperatures outside environment summer season to the sun ray/sun outside)	Safety	Outside hot environment temperatures increased by summer conditions/Ultra Violet, during area inspections, observations, investigations and surveys or monitoring	Contractor Employees and Visitos	Contractor Site manager	3 to 6 hours	Dizziness due to quick blood vessel dilation causing less oxygen flowing to the brain, falling, strike against, struck by etc	Employees have received training on the effects of heat, no tight clothing to be worn while working in the hot environmentexposed to sun light and workers to partake to at least 602ml of water every hour, - Heat stress monitoring and - Hard hats	3	B	III	Most Effective	- Provide workers with Rehidrat and to partake to it at least every hour - Allow regular breaks in a cool place - Hard hats with side to back brims or hats with brims	Feedback from workers to the supervisor and heat stress monitoring results recommendations	Coal stock Yard Manager, Coal Manager, Safety Risk Management	OHS Act 85 of 1993, Environmental Regulations for W orkplaces, 1987 (Schedule), SANS 10114- 1:2005 Artificial Lighting of Interior, SANS 10114-2:2009 Emergency lighting, SANS10089-2:2007 Exterior security lighting, Eskom 32-282 Medical Surveillance Procedure, Eskom SHEQ Policy			
	R	4	**Illumination**	4.1	Poor lighting in the coal stockyard during installation of the fibre optic network infrastructure for the scales at the new coal yard control room	Health	Dirty light cover or not sufficient lights and defective vehicles lights and or when conducting plant walk inspections, observations, investigations, surveys/monitoring at the coal stock yard during the night	Contractor Employees and Visitos	Contractor Site manager	3 to 6 hours	Eye strain, headaches, reduction in mental alertness and bumped by vehicle	Provide portable lights and torch Reporting and replacement of the defective lights Illumination surveys conducted once per year and or on adhoc basisPeriodic Medical Surveillance-vision screening as per an individual	3	B	III	Most Effective	Install lights the strategic areas to reduce glare Emergency lighting are recommended should there be power failure	Physical checkes by the supervisor, feedback from workers and illumination survey report results and recommendations implemented	Coal stock Yard Manager, Coal Manager, Safety Risk Management	CHS Act 85 of 1993, Environmental Regulations for W orkplaces, 1987 (Schedule), SANS 10114- 1:2005 Artificial Lighting of Interior, SANS 10114-2:2009 Emergency lighting, SANS10089-2:2007 Exterior security lighting, Eskom 32-282 Medical Surveillance Procedure, Eskom SHEQ Policy			
	R			4.2	Poor lighting in the coal stockyard during installation of necessary fibre optic infrastructure from the main security building to the new coal gate area	Safety	Dirty light cover or not sufficient lights and defective vehicles lights and or when conducting plant walk inspections, observations, investigations, surveys/monitoring at the coal stock yard during the night	Contractor Employees and Visitos	Contractor Site manager	Daily- 8 -12 hrs	Glare - actually decrease a person's ability to see, trips and falls, stuck/hit by or against, collide with, injuries, fatal	Reporting defective lightsand replacement of the defectivelights Portable torches provided Informal training in the form of toolbox talksIllumination surveys conducted once per year and or on adhoc basis Periodic Medical Surveillance-vision screening as per an individual	4	B	III	Most Effective	Install additional lights at the strategic areas to reduce glare Emergency lighting are recommended should there be power failure	Physical checkes by the supervisor, feedback from workers and illumination survey report results and recommendations implemented	Coal stock Yard Manager, Coal Manager, Safety Risk Management	CHS Act 85 of 1993, Environmental Regulations for W orkplaces, 1987 (Schedule), SANS 10114- 1:2005 Artificial Lighting of Interior, SANS 10114-2:2009 Emergency lighting, SANS10089-2:2007 Exterior security lighting, Eskom 32-282 Medical Surveillance Procedure, Eskom SHEQ Policy			
	R	5	**Ergonomics**	5.1	Strain and strain muscle	Health	Pushing, pulling, bending, sitting and awkward position during inspctions/checking, maintenance of trucks/vehicles cleaning and maintenance of coal stock yard conveyor belts, operating of other auxiliaries and driving at coal stock yard and or when conducting plant walk inspections, observations, investigations, surveys/monitoring at the coal stock yard during the night	Contractor Employees and Visitos	Contractor Site manager	Daily- 8 -12 hrs	Muscular Skeletal disorder	Lifting procedure explained to the employees, Awareness training of proper operating of the tipper cars, pushing, bending, opening of the bin gates and tipper cars brake fastening	3	A	IV	Fully Effective	Wareness on ergonomic	Observation while performing the work	Coal stock Yard Manager, Coal Manager, Safety Risk Management	CHS Act 85 of 1993, Environmental Regulations for W orkplaces, 1987 (Schedule), SANS 10114- 1:2005 Artificial Lighting of Interior, SANS 10114-2:2009 Emergency lighting, SANS10089-2:2007 Exterior security lighting, Eskom 32-282 Medical Surveillance Procedure, Eskom SHEQ Policy			
	R			5.2	Conduct plant walk inspections, observations, investigations, surveys/monitoring at the coal stock yard	Safety	Pushing, pulling, bending, sitting and awkward position during inspctions/checking, maintenance of trucks/vehicles cleaning and maintenance of coal stock yard conveyor belts, operating of other auxiliaries and driving at coal stock yard and or when conducting plant walk inspections, observations, investigations, surveys/monitoring at the coal stock yard	Contractor Employees and Visitos	Manager & Supervisors	Daily- 8 -12 hrs	Dislocation, injuries, fractures	Awareness training of proper operating of the tipper cars, pushing, bending, opening of the bin gates and tipper cars brake fastening	4	A	IV	Fully Effective	Previous incident recall	Safety Audit	Coal stock Yard Manager, Coal Manager, Safety Risk Management	CHS Act 85 of 1993, Environmental Regulations for W orkplaces, 1987 (Schedule), SANS 10114- 1:2005 Artificial Lighting of Interior, SANS 10114-2:2009 Emergency lighting, SANS10089-2:2007 Exterior security lighting, Eskom 32-282 Medical Surveillance Procedure, Eskom SHEQ Policy			
	R	6	**Gases and diesel fumes**	6.1	Installation of Coal Gate Surveillance and Access Control in the coal stockyard vicinity	Health	Spontaneous ignition/emergency burning of coal in the coal stathes or in the coal bunkers and during lashing	Contractor Employees and Visitos	Contractor Site manager	Daily- 8 -12 hrs	Dizziness suffocation, tiredness & drowsiness,	Portable extraction fans, contineous gas monitoring: Employees have received awareness training on the effects of gases inhalation - Charcoal coated dust mask FFP2	2	B	IV	Fully Effective	- Mechanical ventilation fans (Extractions) when coal is burning in the coal stathes or coal bunkers - Personal contineous gas monitoring device to be provided for employees working in the coal stathes when the coal is burning and or during lashing	Inspections, observations	Coal stock Yard Manager, Coal Manager, Safety Risk Management	CHS Act 85 of 1993, Environmental Regulations for W orkplaces, 1987 (Schedule), SANS 10114- 1:2005 Artificial Lighting of Interior, SANS 10114-2:2009 Emergency lighting, SANS10089-2:2007 Exterior security lighting, Eskom 32-282 Medical Surveillance Procedure, Eskom SHEQ Policy			
	R			6.2	Installation of Coal Gate Surveillance and Access Control in the coal stockyard vicinity	Safety	Driving of the truck(s), incoming/out-going of the emergency and other vehicles during normal times and during emergency response time	Contractor Employees and Visitos	Contractor Site manager	Daily- 8 -12 hrs	Hit by, bump by, runover by, injuries, fructure, fatal	Signal training to be implemented activated Limiting the number of people in the scene and traffic control to from the scene - Barricading of the scene area - Reflective vests	2	B	IV	Fully Effective	none at the moment	Inspections, observations	Coal stock Yard Manager, Coal Manager, Safety Risk Management	Environmental Regulations for W orkplaces, 1987 (Schedule), SANS 10114- 1:2005 Artificial Lighting of Interior, SANS 10114-2:2009 Emergency lighting, SANS10089-2:2007 Exterior security lighting, Eskom 32-282 Medical Surveillance Procedure, Eskom SHEQ Policy			
	N	7	**Psyco-social stress (Psychological Stress)**	7.1	Working long hours due to urgency of work	Health	Complete the job on time or behind with schedule	Contractor Employees and Visitos	Contractor Site manager	Daily- 8 -12 hrs	Loss of concentration, fatigue	Plan the work properly and execute the plan, get exemption from the Department of labour to work overtime	3	B	III	Most Effective	Awareness training on the Basic Condition of Employment Act and Fatigue Management Contol to be implemented and adhered to theof	Feedback from workers and adherence to the administrative controls	Coal stock Yard Manager, Coal Manager, Safety Risk Management	CHS Act 85 of 1993, Environmental Regulations for W orkplaces, 1987 (Schedule), OHSAS 18001:2007, Basic Conditions of Employment Act 1997, Eskom 32-727 SHEQ Policy,			
	R			7.2	Working shift due to urgency of work	Safety	Community strike, blocking employees to come to work	Contractor Employees and Visitos	Contractor Site manager	Daily- 8 -12 hrs	Loss of concentration, fatigue, slips, trips and fall	**Call SAPS to monitor the employees going to work, Discuss Fatigue Management Procedure with employees**	4	C	II	Most effective	**Open the other gate so that those employees willing to go to work can do so without any interruption**	feedback from workers and adherence to the administrative controls	Coal stock Yard Manager, Coal Manager, Safety Risk Management	CHS Act 85 of 1993, Environmental Regulations for W orkplaces, 1987 (Schedule), OHSAS 18001:2007, Basic Conditions of Employment Act 1997, Eskom 32-727 SHEQ Policy,			
	R	8	Poisoning Snake and Insects	8	**Insects and or snakes bites/ poisoning**	Health	Overgrown weeds, stagnant water, bee hives	Contractor Employees and Visitors	Contractor Site manager	Daily- 8 -12 hrs	Allergic reaction, malaria, blood system poisoning, swelling and death	- Call emergency number for snake - handler 5222 , for bees report to Environent so that they can inform Pest Control Contrator	3	B	III	Most effective	Awareness training on how to behave when encountering snake or bee hives and cut long grasses	Observation and inspection	Contractor Supervisors	Eskom Sheq Policy, Refusal to work under an unsafe condition Eskom Procedure			
	R	9	**Movement of heavy vehicles**	9	Run over by moving vehicles	Safety	Execution of work	Contractor Employees and Visitos	Contractor Site manager	Daily- 8 -12 hrs	Fatality	Reflective stripes on the vehicle, strobe lights, reverse alarm, flag , drivers to be authorised to drive vehicles - Reflector jackets to be worn at all times	5	B	II	Most effective	Adhere to traffic management procedure Make people aware of the dangerswhere ,	Planiwalk,	Contractor Supervisors, Safety Officer, Site Manager	BBS Procedure 32-408, Eskom Sheq Policy			