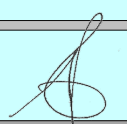


Business/Operating unit:				Kusile Project				Department:				OHS				Next Review Date (every 2 years):				Oct-24				Template identifier:				240-70044602			
Date:				01-Jul-24				Prepared by:				KET				Name: Anville Rhode Designation: Safety Manager Date: 25 July 2024								Document identifier:							
												KET				Authorised by:								Revision number:				5			
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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 group/employees	Risk Owner	Exposure patterns	What are the possible consequences?	Existing Controls	Consequence	Likelihood	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									
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) NB: The risk shall be evaluated, assessed and rated				Includes: - 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) NB: The risk shall be evaluated, assessed and rated	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 (if applicable)	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 (if applicable)	Pending, In Progress, Complete (if applicable)	Where applicable, add IRM system reference number for tracking of treatment actions (applicable to risks that have an impact on business objectives or require intervention from Senior or Executive management such as implementing major engineering projects as a control)									
Lifting & Rigging	R	KS01	1) Adverse Weather Conditions 2)Crane	RS1	1) Lightning & strong winds 2) Boom Failure; tipping over and dropped loads	Safety	1) Natural causes.	KET Employees, Visitors, Equipments and Contractor's Employees	Construction Managers, Contractors Managers, Superintendent Supervisors and Crane Co-ordinators	Daily	Fatality/injuries and damage to property	1) Weather Monitoring 2) Training and awareness, inspections and maintenance, compliance to legislation and eskom procedures, Contractors Safe work procedures,	4	B	II	Fully effective	2) Competency verification, Crane Coordinators Forum.	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.31, OHS Act (CR 22 and DMR18), Eskom		In-progress / continuous									
			1) Load falling		1) Mechanical Failure, Poor communications, Unauthorised operator, lack of barricade, not paying attention	KET Employees and Contractor's Employees	Construction Managers, Contractors Managers, Superintendent Supervisors and Crane Co-ordinators	Daily	fatalities, injuries and Property damage	1 & 2) Competency and supervision, inspections and maintenance, DSTI, adherence to SWP and SWL and Spotter to guide plant	4	C	II	Fully effective	Review safe work procedures, Check Effectiveness of Maintenance on Equipment	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.31, OHS Act (CR 18, DMR 18, Eskom Standard 39-98)		In-progress / continuous											
			2) pedestrian run-over	RS2	2) Overloading, ground Conditions, Sub-standard equipment, Mechanical Failure.		2) unprotected edges and medical conditions	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	fatalities, injuries and Property damage	1) FAS Competency and fall protection and prevention systems, medical surveillance provision of appropriate PPE	5	C	II	Fully effective	Review safe work procedures, check Effectiveness of Maintenance on Equipment, KET employees to be incorporated in contractors Fall protection plan/ies (as per section 8 of OHS Act), awareness.	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.32, OHS Act (sec 8 & CR 10), Eskom Standard 32-418 /SANS 10085		In-progress / continuous									
			3) Equipment tip over		3) Overloading and improper rigging		3) Sub standard Scaffolding uneven surface		3) Site inspections, fall protection and prevention systems		4	C	II	Fully effective																	
Working at heights	R	KS03	Heights/ elevated position	RS3	1) personnel Falling From Heights	Safety	2) Falling Objects	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	fatalities, injuries	1) FAS Competency and fall protection and prevention systems, medical surveillance provision of appropriate PPE	5	C	II	Mostly effective	Review safe work procedures, check Effectiveness of Maintenance on Equipment, KET employees to be incorporated in contractors Fall protection plan/ies (as per section 8 of OHS Act), awareness.	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.32, OHS Act (sec 8 & CR 10), Eskom Standard 32-418 /SANS 10085		In-progress / continuous									
Electrical Installations	R	KS04	Electricity	RS4	1) Electrocution	Safety	1) Unauthorized access, No-lock out system, Working on a live plant, No earthing theft, unauthorized operations	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	fatalities, injuries and Property damage	1) competency, training and Awareness, adherence to life saving rule 1 & 5, appropriate PPE, signage; security measures	4	B	II	Fully effective	Review safe work procedures, Check Effectiveness of Maintenance on Equipment; monitoring life saving rules violations	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.26 & 3.36, OHS Act (CR 24, EIR and EMR); Eskom Regulation 38-681; Eskom Standard 240-02/06/27, life saving		In-progress / continuous									
Commissioning activities	R	KS05	1) electricity	RS5	2) Equipment Failure	Safety	2) uncontrolled release of pressurised systems, explosions	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatality, injuries and property damage	2) signage, Training and awareness, inspections, Eskom Procedures, compliance to Legislation, Contractors Safe work Procedures & Supervision	5	C	II	Fully effective	Task risk Assessment, walk through assessments, use of Arch Flash PPE	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification 3.26 & 3.36, OHS Act (CR 24, EIR, PER and EMR); Eskom Regulation 38-681; Eskom Standard 240-		In-progress / continuous									
Hot work	R	KS06	2) pressurised systems	RS6	1) inhalation	Safety	2) uncontrolled release of pressurised systems, explosions	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatality, injuries and property damage	2) signage, Training and awareness, inspections, Eskom Procedures, compliance to Legislation, Contractors Safe work Procedures & Supervision	4	C	II	Mostly effective	Audits, Inspections & BBS														
			1) gas leaks, fumes	RS7	1) gas leaks, heat treatment		1) gas leaks, heat treatment		1) proper ventilation, use of PPE		4	B	II	Mostly effective	Training & awareness, co-ordination permit																
			2) compressed cylinders	RS8	2) Fire & explosions		2) compressed cylinders, flash back, heat transfer	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatality, injuries and property damage	3) routine inspections, good housekeeping, safe management use of layout on hoses	4	C	II	Mostly effective															
			3) cables & hoses	RS9	3) Slips, Trips & Falls, whiplash		3) Slips, Trips & Falls, whiplash		3) Slips, Trips & Falls, whiplash		4	C	II	Mostly effective																	
Working in open spaces and on structures	R	KS10	4) sparks, arch & flames	RS10	4) UV exposure & fire	Safety	4) lightning strikes	KET Employees and Contractor's Employees	EP Manager	Adhoc Basis	Fatality, LTI, minor injuries and property damage	4) Welding Spatter heat treatment	4	C	II	Mostly effective	Audits, BBS, PTO, Inspections														
	R	KS11	Adverse weather conditions lightning, storms, floods, heavy rains and strong winds	RS11	1) lightning strikes	Safety	1) lightning strikes	KET Employees and Contractor's Employees	EP Manager	Adhoc Basis	Fatality, LTI, minor injuries and property damage	1) Weather monitoring	6	B	II	Fully effective	2) lifeboy rings & signage	Audits & Inspections	EP Manager	KET SHE Specification 3.42, Emergency Preparedness Plan 240-26297330		In-progress / continuous									
			2) lightning strikes	RS12	2) lightning strikes		2) lightning strikes		2) lightning strikes		6	B	II	Fully effective																	
			3) collapsing structures	RS13	3) collapsing structures		3) collapsing structures		3) collapsing structures		6	B	II	Fully effective																	
			1) hazardous atmosphere and substances	RS14	1) Asphyxiation & Oxygen Enrichment, Airborne Combustible dust/vapours		1) Asphyxiation & Oxygen Enrichment, Airborne Combustible dust/vapours		1) Asphyxiation & Oxygen Enrichment, Airborne Combustible dust/vapours		3	A	IV	Fully effective	SWP, calibrated equipment.	Audits, Inspections, DSTI, Gas Monitoring	KET SHE Manager	KET SHE Specification Section 3.40, General Safety Regulations 5													
Working in confined space	R	KS12	2) Electrical & mechanical Equipments	RS14	2) Electrocution, fire & explosions	Safety	2) Electrocution, fire & explosions	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Loss of Consciousness, Injuries, Fatality, property damage, fire & explosions	1) artificial ventilation, environmental monitoring	4	C	II	Mostly effective	Review safe work procedures, Check Effectiveness Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40, Traffic Management Plan, OHS Act (CR22), Eskom Procedure 32-345		In-progress / continuous									
	R	KS13	3) animals	RS16	3) animal bite & stings	Safety	3) animal bite & stings	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	injury	3) inspection prior entry	4	C	II	Mostly effective															
			4) Floods	RS17	4) drowning & electrocution		4) drowning & electrocution		4) drowning & electrocution		4	C	II	Mostly effective																	
			5) Limited Access, Egress & workspace	RS18	5) Entrapment, entanglement & entanglement		5) Entrapment, entanglement & entanglement		5) Entrapment, entanglement & entanglement		4	C	II	Mostly effective																	
			6) temperature extremes	RS19	6) heat & cold stress		6) heat & cold stress		6) heat & cold stress		4	C	II	Mostly effective																	
	R	KS14	7) noise	RS20	7) hearing loss	Health	7) hearing loss	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	injury	7) hearing protection	4	C	II	Mostly effective															
			8) poor lighting	RS21	8) slip and falls		8) slip and falls		8) slip and falls		4	C	II	Mostly effective																	
			9) surfaces	RS22	9) uneven & slippery surfaces		9) uneven & slippery surfaces		9) uneven & slippery surfaces		4	C	II	Mostly effective																	
			1) improper stacking/securing of loads	RS23	falling materials / loads; spillage		falling materials / loads; spillage		falling materials / loads; spillage		4	C	II	Mostly effective																	
Transportation of Materials	R	KS21	2) mode of transportation	RS23	2) mode of transportation	Safety	2) mode of transportation	KET Employees and Contractor's Employees	Contractor SHE Managers, Contractor Managers KET SHE Manager	2 - 4 hours	Fatality, LTI and property damage	2) road maintenance and inspection	4	B	III	Fully effective	Engineering drawings, adherence to load bearing capacity and detailed ergonomics risk assessment to be conducted	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.31, OHS Act (CR 28, DMR 18), Eskom Standard 39-98.		In-progress / continuous									
Manual handling	R	KS22	(1) heavy loads	RS24	(1) Dropped/falling loads, pinch points	Safety	(1) Dropped/falling loads, pinch points	KET Employees and Contractor's Employees	Construction Manager, Construction Supervisors, SHE manager and Operators	Daily	fatalities, injuries and Property damage	(1) SWP, buddy systems, pallet/dunnage, Assistance lifting (mechanical)	5	D	I	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification 10, DMR 10		In-progress / continuous									
	R	KS23	(2) ergonomics	RS25	(2) Awkward body positioning, repetitive movement	Safety	(2) Awkward body positioning, repetitive movement	KET Employees and Contractor's Employees	Construction Manager, Construction Supervisors, SHE manager and Operators	Daily	fatalities, injuries and Property damage	(2) Rotation of team, SWP	4	B	III	Fully effective															
			(3) Storage area layout	RS26	(3) Entrapment, slips, trips and falls		(3) Entrapment, slips, trips and falls		(3) Entrapment, slips, trips and falls		4	C	II	Fully effective																	
			(4) stored energy	RS27	(4) swinging loads and rotating equipment		(4) swinging loads and rotating equipment		(4) swinging loads and rotating equipment		4	C	II	Fully effective																	
			(5) moving guard	RS28	pinch points		pinch points		pinch points		4	B	III	Fully effective																	
Tightening, hammering and chipping	R	KS27	1) Restricted spaces	RS29	1) Poor Ergonomics	Health	1) Poor body postures, Unsafe practice	Contractor Employees KET employees	Contractor SHE Managers, Contractor Managers KET SHE Manager	Daily	LTI, Medical treatment case	(1) Rest breaks	3	B	II	Fully effective	Training & awareness & Behavioural based observations	Audits, Inspections & BBS, Autometric tests	KET Safety Manager	KET SHE Specification 3.28, EMR 10		In-progress / continuous									
Drilling	R	KS28	2) Tools	RS30	2) Pinch point	Safety	2) Defective tools					2) inspection and maintenance, SWP and awareness	4	C	II	Mostly effective															
			3) Dust	RS31	3) Dust inhalation	Health	3) Incorrect/ No usage of respiratory equipment		3) Incorrect/ No usage of respiratory equipment		3	B	II	Fully effective																	
			4) Noise	RS32	4) Noise exposure		4) No or incorrect usage																								

Office work	R	KS51	2)office furniture & equipment	RS53	2)Edges,pinch points, cut by, ergonomics, glare, fall off/iron	Health	2) defective furniture, improper position,	KET Employees and Contractor's Employees	1) Site services manager 2) Occupational Hygiene Officer	Daily/ Monthly	LTI, Section 24 and property damage	2) Illumination survey, ergonomic configuration and maintenance	3	D	II	Fully effective	1)Detailed ergonomics risk assessment to be conducted	Inspections(e.g.SHE representative inspection); VFL and surveys	Support service manager	regulation and Facilities regulations		In-progress / continuous				
		KS52	3) Inadequate Building maintenance	RS54	3) inadequate ventilation,Poor illumination,Leakages,blocked ablution facilities	Health	3) Not following planned maintenance schedule,Delay in Procurement processes					2) Indoor Air Quality Survey 3) training and awareness	4	C	II	Mostly effective										
		KS53	4)cables, conduits and uneven surface	RS55	4) trip and fall	Safety	4) poor management of cables, poor design and lack of maintenance and poor management of cables, poor design and lack of maintenance					4) Use of building maintenance service provider (use of central e-mail for reporting),awareness and good housekeeping	4	E	I	Mostly effective										
Working in shared spaces	R		5) uneven surface; heavy loads		5) Slip trips and falls;	Safety	5) Lack of facility / resources for the disabled	People with disabilities	Line managers and HR	Daily	Injuries	Ramps, provision of disabled facilities, assigning of duties to consider disability	4	C	II	Mostly effective	requesting for assistance from co-workers	inspections	General Manager	BCE Act and EE Act		In-progress / continuous				
			Pandemic		1)Human to human transmission through droplets; 2)transmission through contaminated surface	Health	1) Touching contaminated surface and exposed virus to mouth, eyes and nose; 2) Inhale droplets from infected person					KET Employees, Contractors Employees, suppliers, visitors.	Appointed pandemic representatives for both client and contractors	Daily	Fatalities & illness	1) Encourage work from home if possible, mandatory wearing of protective mask in public, washing of hands with soap, sanitisation with sanitizer at least 70% alcohol, social distancing, control access gates, daily screening and taking body temperature, promote hygiene	5	C	II	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce soacial distancing at all times, induction to all employees about Corona	DEL inspections at work places	Appointed COVID- 19 Coordinators for both client and contractors	Occupational health and safety measures in workplace (COVID-19 (C19 OHS)		In-progress / continuous
			Insects, reptiles and stray animals	RS57	1) bites/stings	Health and safety	1) natural defence of animals; attack by animals & immune reaction due to animal sting or fur 2) being startled or fleeing						Contract Managers and supervisors	Daily/ Monthly	Injury; illness and fatality	1) Pest control contract, snake catchers; 24/7 EMS 2) awareness; housekeeping , signage and barricade	5	C	II	Mostly effective	Re-fresher awareness	Site inspection	KET SHE Manager	OHSAct and FCD Act		In-progress / continuous
Use of lifts (e.g Alimak etc.)	R		Equipment operation at heights	RS58	1) brake failure; equipment dropping; strong winds; equipment runing out of control	Safety	1) Mechanical Failure, Overloading, Unauthorised operator.	KET Employees, Contractor's Employees and visitors	Contractor SHE Managers, Contractor Managers	Daily	fatalities, injuries and property damage	1) competency, inspections and maintenance; Weather monitoring and SWP and load limit signages	5	C	II	Mostly effective	Barometers for operators or wind monitoring information communicated to operators	Inspections and surveys	Contractor SHE Managers, Contraction Managers	OHSAct and lift, escalators & passenger conveyer regulations		In-progress / continuous				
		KS57		RS59	2) equipment (parts) breaking; material dropping from heights	2) Sub-standard equipment; Mechanical Failure	2) Inspection and use of genuine parts					4	B	III	Fully effective											
			Poor lighting/ visibility on construction areas	RS60	1) Trip and fall,	Health	1) Poor coordination amongst the contractors and KET, 2) Lack of lighting maintenance, 3)					KET Employees and Contractors Employees	Construction Managers and supervisors	Daily	Eye/ sight disturbance, injury	DSTI, Mobile lights,							2	B	IV	Mostly effective
Site-wide lighting	R		1) night conditions	KS59	1)poor illumination	Safety	1)poor lighting, natural conditions	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	fatalities, injuries and property damage	1) additional lighting	5	B	II	Fully effective	head lamps and torches	Inspections and surveys	Contractor SHE Managers, Contraction Managers	OHSAct and Environmental and Facilities regulations		In-progress / continuous				
		Opening and Closing of doors	R		vehicles and facility doors		Struck by and pinch point		Poor maintenance, Lack of concentration, lack of knowledge/ awareness (restricted area) 2) Adverse weather condition	KET Employees and Contractors Employees	KET and Contractors Managers	Daily	Injury (minor to major)	Inspections, Awareness, warning signages				SHE and Formen Forums, Safety vehicle campaign, installation of door transparency screen and PPE (gloves and safety boots)	Inspections audits	Security Manager, Support Services, Contractors managers	OHS Act, Facilities regulations and Construction Regulation 23, Kusile SHE Specification		In-progress / continuous			
					1) workload	KS61	1) Fatigue 2) Frustration	Health	1) Overworked; 2) uneven distribution of duties/responsibilities; planned events and acceleration of activities affect the schedule		Proper planning (allocation of resources); Eskom assistance program and wellness clinic	3	C	II	Mostly effective	Targeted awareness campaigns; improvement of working relationship with line manager (brothers keeper)	Leave of absence monitoring: Time sheet	line manager and HR	Leave management procedure; Basic conditions of service, basic condition of employment Act and labour relations Act		In-progress / continuous					
	2) work hours			KS62	1) Fatigue from working long hours	Health	1) Long hours (overtime) and long travel times outside the feeding towns		1) Project Labour Agreement and Basic conditions of service; Planned overtime schedule and	5	C	II	Mostly effective	Add extra resources to minimize long working hours	Time sheet, complain register to IR	line manager and HR	Leave management procedure; Basic conditions of service, basic condition of employment Act and labour relations Act		In-progress / continuous							
workplace Psycho-Socio & Human Factors	R		1)Harassment 2) Unfair treatment	KS63	1)lack of diversity in a workforce,violation of human right, poor management of stress,lack of people management 2) Prejudice	Health	1) lack of diversity in a workforce,violation of human right, poor management of stress,lack of people management 2) Prejudice	KET Employees and Contractors Employees	Line managers and HR	Weekly	mental illness(a. depression, stress, etc.)absenteism,Resignation	1) EAP, Internal relation intervention,Diversity management Awareness, Ethics training	2	C	III	Mostly effective	External professional medical assistance	Complain register to IR	line manager and HR	Leave management procedure; Basic conditions of service, basic condition of employment Act and labour relations Act		In-progress / continuous				
			3) Inherent work place dynamics	KS64	3) Bullying		1) Power dynamics, Cultural and language difference in the workplace & Immoral						EAP, awareness training on code of conduct practices and employees rights	2	C	III	Mostly effective	Ensure cultural diverse employees understand laws at workplace,	leave of absence monitoring: Time sheet, complain register to IR	line manager and HR	Leave management procedure; OHSAct Sec 14 Basic conditions of service, basic condition of employment Act and labour relations Act		In-progress / continuous			
				KS65	Less aware of laws and workplace norms		2 ) lack of orientation of new employees .						EAP, induction and training of new employees	3	C	II	Mostly effective	full Orientation and continuous awareness training on legal updates and organisation norms and standards	leave of absence monitoring: Time sheet, complain register to IR	line manager and HR	Leave management procedure; Basic conditions of service, basic condition of employment Act and labour relations Act		In-progress / continuous			
Provision of food and water	R		Hot (surfaces ,steam,oil )Fire ,Gas , machinery	KS66	Burns ,explosion , machine failure	Safety	Not following SWP,Inspections on machinery not done , lack of machinery service	Contractor employees	site services	Daily	Fatality, injuries and property damage	SWP , Maintenance training and awareness	5	C	II	Mostly effective	Regular Audit inspections	Inspections	Support Service Manager	FCD Act ; Food Hygiene and safety management standard rev 3		In-progress / continuous				
			food handling, preparation and storage	KS67	expired food, and Food contamination	Health	No food labelling ,No food samples ,Not following swp ,poor food hygiene practices, poor cleaning	Contractor employees	site services	Daily	fatalities ,medicals	SWP, Training , food samples ,food labelling for consumption period, awareness, Certificate of acceptability	5	C	II	Mostly effective	Regular Audit inspections	Inspections	Support Service Manager	FCD Act ; Food Hygiene and safety management standarc rev 3		In-progress / continuous				
			Food conveyer	KS68	pinch point	Safety	No machine guard , not adhering to SWP , lack of maintenance	Contractor,Eskom employees & Visitors	site services	Daily	LTI	Maintenance , Training and SWP	4	C	II	Mostly effective	Regular Audit inspections	Inspections	Support Service Manager	FCD Act ; Food Hygiene and safety management standard rev 3		In-progress / continuous				
Walking on site	R		Walk in fridges	KS69	suffocation	Health	Not adhering to the swp ,	Contractor,Eskom employees & Visitors	site services	Daily	Fatalities ,medicals	SWP, Training , maintenance ,safety lock system	5	B	II	Mostly effective	Regular Audit inspections	Inspections	Support Service Manager	FCD Act ; Food Hygiene and safety management standard rev 3		In-progress / continuous				
			drinking water	KS70	contaminated water	Health	Poor cleaning, contamination from the source , poor hygiene practices	Contractor,Eskom employees & Visitors	site services	Daily	medicals and LTI	cleaning schedule, SWP and Water sampling	4	C	II	Mostly effective	Regular Audit inspections	Inspections	Support Service Manager	FCD Act ; Food Hygiene and safety management standarc rev 3		In-progress / continuous				
		Cleaning	R		1) Chemicals 2) Wet surfaces 3) Tools 4) Hot surfaces (Hydrobols) and water	KS71	1)Skin irritations contact with chemicals 2). slip trip and fall 3) cut by tools 4) Bum	Safety	1) Not adhering to SOP and MSDS 2)No wet surface signage, 3) Defective tools , poor maintenance of facility,Using wrong tool for the job 4) Using wrong tool for the job, Not adhering to SWP, Tap not properly labelled	Contractor,Eskom employees & Visitors	site services	Daily	LTI, Medical and first aid	MSDS ,SWP, Training	4	C	II	Mostly effective	Awareness campaigns	Inspections	Support Service Manager	OHS Act; HCA Regulation Facilities reg 9		In-progress / continuous		
Site and Public Unrest	N				1) Violent Uncontrolled people	KS72	1) instability, fighting, damaging to property	Safety	1) Disputes and disgrantled public / employees	KET public,visitors,employees and Contractors Employees	Security Manager	Adhoc Basis	Fatality, injuries and property damage	Project Labour agreement,Central management forum,shareholder engagement, Communication alert sent to employees during unrest	5	C	II	Mostly effective	Intelligence gathering, Periodical refresher training and Mock drills	Mock drills	Security Management	PLA agreement, Criminal Law Procedure Act, Labour Relation Act		In-progress / continuous		
				Waste Handling	R		Medical waste and biological waste	KS73	Cut by,aplashed by	Health	Improper handling,Not adhering to SOP	Contractor employee	Site services	Daily/ Monthly	Medical	Training, Disposal in designated containers/Waste Separation, Use of appropriate PPE	3	C	II	Mostly effective	Awareness	Inspections and audits	Support service manager	NEMWA		In-progress / continuous
		Walking on site	R				Uneven & slippery surfaces, cables, ropes, conduits, pipes,bricks	KS74	Slips, trips and falls	Safety	Poor housekeeping, liquid spillages, lack of maintenance and poor design of structures and surfaces, using substandard shoes	Contractor,Eskom employees & Visitors	KET and Contractors Managers	Daily	LTI, Medical and first aid	Awareness and site rules (i.e no running and no testing while walking), Promote housekeeping, barricading hazardous area, maintenance of buildings and structures, designated walk ways and wearing appropriate safety boots	4	C	II	Mostly effective	drainage/ detour of walkways during rainy seasons	Inspections and audits	KET Mangement	OHS Act and SHE Spec 3.32		In-progress / continuous
Handling fire arms	R						Fire arms	KS75	Deviation from Procedures, unfamiliar with a specific fire arm	Safety	Contractor,Eskom employees & Visitors	Security Manager	Daily	Fatality, Medical and First aid cases	Gun Competency training, Fire arm procedures, bullet trap bin	5	B	II	Mostly effective	Re-fresher awareness and shift manager to over see process	inspections	Security Management	NKPAct and Fire arms control Act		In-progress / continuous	
				Horticulture	R		Uneven surfaces	KS76	Slips, trips and falls	Safety	landscape	Contractor,Eskom employees & Visitors	KET and Contractors Managers	Daily	injuries and property damage	awareness (foot placement) and correct PPE to be worn	4	C	II	Mostly effective	Relocation of vehicles, signages and spotters	Inspections and audits	Support service manager	The Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 56 of 1947) and Health and SafetyAct (Act 94 of 1993, Hazardous substance Regulations		In-progress / continuous
			animal and insects			KS77	Bites and stings	Safety	animal encounter	assess area before carrying out work	5					C	II	Mostly effective								
	Hand tools	KS78	Pinched points, Cut by and struck by			Safety	Damaged tools, improper handling, congested work areas,working near buildings/vehicles	inspect before use, employee training, screening and use of alternative equipment	3	C	II					Mostly effective										
Handling ash	R		Vegetation	KS79	Skin irritation and respiratory irritation	Health	allergic reaction	Eskom employees, contractor employees; visitors	KET and Contractors Managers	Daily	injuries and property damage	Medical cases	Use of long sleeve overalls , dust mask and job placement	3	B	III	Mostly effective	Awareness	Inspections and audits	Construction Managers	HCA Regulation		In-progress / continuous			
			Chemical	KS80	Skin irritation and fires	Safety	Fuel and horticultural chemicals					Training, Use of chemical as per SDS and correct PPE	3	B	III	Mostly effective	Awareness									
			Fly ash dust	KS81	Ash inhalation	Health	Suspended ash particles due moving machinery, manual handling, malfunctioning plant and strong winds					Eskom employees, contractor employees and visitors	Construction Managers	Daily	Fatality, Medical, first aid cases and property damage	Regular maintenance of plant, dust suppression, PPE	3	D						II	Mostly effective	Awareness and Air Monitoring
Blasting	R		uncontrolled blasting	KS82	Poor visibility	Safety	area not demarcated, blasting notification not done, incorrect explosives and type of rock.	Eskom employees, contractor employees; visitors and farmers	Construction Manager, Supervisor	Ad-hoc	Fatality, injuries and property damage	competent and registered contractor; blasting zone demarcation; notification of the blasting	5	B	II	Mostly effective	Blasting to be done outside normal working hours	inspections and audits	Construction Manager	Explosives Regulations and CR		In-progress / continuous				
			Explosives are left unattended to on the construction site	KS83	Explosives can be stolen and used for criminal activities	Safety	Explosives not properly controlled as legally required and as per procedure.	Employees	Construction Manager, Supervisor, Safety Officer	Daily	Multiple fatalities	Explosives are delivered on the day of the blast in exact quantities as is required and immediately charged into the blast holes on arrival at the construction site, left-overs are removed from site by the blasting contractor.	6	A	I	Fully effective	Security checks are conducted at the access gates, all explosives are recorded and signed off in an explosives control register	All explosives are accounted for and utilized accordingly	Project Manager, Explosives Contractor, Supervisor	Explosives Regulations, Client Safety Specification, Contractor Safety Plan, Contractor Method Statement & Risk Assessment for Managing & Use of Explosives on site		In-progress / continuous				
			Fly rock becomes airborne	KS84	Employees & Infrastructure can be struck by blasted fly rock	Safety	Blasting procedure not followed thus exposing employees and equipment to fly rocks	Employees	Construction Manager, Supervisor, Safety Officer	Daily	Fatality or life threatening health effects	Blasting is done as per the approved procedure and all employees and plant that might be affected gets evacuated from the danger zone.	5	B	II	Mostly effective	A register of explosives on site, inspection of the blasting area after the blast	Inspections	Construction manager	Explosives Regulations		In-progress / continuous				
Road works		KS85	Earthworks (Clear and Grub, Layerworks)	RS109	1. Struck by machinery 2. Animal encounter	Safety	1. Man and Machine interaction 2. natural habitat	Eskom employees, contractor employees; visitors	Construction Manager	Daily	Fatality or Injuries and property damage	1. Traffic management plan, lifesaving rules 2. snake catcher	5	B	II	Mostly effective	Awareness, Toolbox talks and VFLs	Inspections and audits	Construction manager	CR23, SHE Spec		In-progress / continuous				
Painting		KS86	Paint	RS110	Contact paint and inhalation of vapours	Health	Improper handling,not adhering to SOP	Eskom employees, contractor employees; visitors	Construction Manager	Daily	Ill health affects	Adequate ventilation; SOPs; SDS,Training and correct P	2	C	III	Mostly effective	Awareness, Toolbox talks and VFLs	Hygiene Surveys; Inspections and audits	Construction manager	HCA Regulations and SHE Spec		In-progress / continuous				

Priority	Risk ranking	Action required
I	Very high	Immediate action required.
II	High	Strong mandatory action required
III	Medium	Action required, possibly at administrative level.
IV	Low	Minor or no action required.

Consequence criteria	
Consequence rating	Description
	<b>Health and Safety</b>
1	No injuries or health effects (near misses)
2	First-aid treatment case, and temporary discomfort case
3	Medical treatment case; occupational disease with reversible/non-permanent effect
4	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence
5	Fatality or life threatening health effects
6	Multiple fatalities