



Business/Operating unit:		Kusile Project			Department:		OHS		Next Review Date (every 2 years):		Mar-27		Template identifier:		240-70044602								
<div><div></div><div><div>Date:</div><div>11-Mar-25</div></div></div>					Prepared by:		KET		Name: Anville Rhode Designation: Safety Manager Date: 11 March 2025		Signature: 		Document identifier: Revision number: 1 Revision date: 30-Apr-27										
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	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) 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, 2) unstable/uneven ground; improper operation of the crane; Inadequate Maintenance; Lack of Risk	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) Lifting equipment 2) Rigging Equipment	RS2	1) Load falling 2) pedestrian run-over 3) Equipment tip over 4. Equipment failure 5. Dropped Load	Safety	1) Mechanical Failure, Poor communications, Unauthorized operator, lack of barricade, not paying attention 2) Overloading, ground Conditions, Sub-standard equipment; Mechanical Failure, Overloading and improper rigging	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	5	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	
			Heights/ elevated position	RS3	1) Unprotected edges and medical conditions 2) Falling Objects 3)Structural collapse	Safety	1) Unprotected edges and medical conditions 2) unprotected edges; loose/unsecured material 3) Sub standard Scaffolding uneven surface	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	fatalities, injuries, property damage , injuries	1) FAS Competency and fall protection and prevention systems, medical surveillance provision of appropriate PPE 2) Site inspections; fall protection and prevention systems 3) competency, inspections and maintenance	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(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	KS04	Electricity	RS4	1)Electrocution 1)Unauthorized access, No-lock out system, Working on a live plant, No earthing (theft, unauthorized operations 2)Equipment Failure 3)Fires & Explosions 1)Explosions, Electrocuton,	Safety	1)Unauthorized access, No-lock out system, Working on a live plant, No earthing 2) Substandard Materials, Shortcuts and Incorrect Connections; system line cracks & burst, operator error, tampering	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 2) Inspections, maintenance & use of drawings 3)Signage, adherence to life saving rule 1 & 5; competency, training and Awareness, fire restraining electrical boards	4	B	III	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, OHS Act (CR 24; EIR and EMR); Eskom Regulation 36-681; Eskom Standard 240-62196227; life saving
Commissioning activities	R	KS05	1)electricity		RS5	2)uncontrolled release of pressurised systems, explosions	Safety	2)uncontrolled release of pressurised systems, explosions	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatality, injuries and property damage	1) competency, training and Awareness, adherence to life saving rule 1 & 5, appropriate PPE, signage 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 Section 3.26, OHS Act (CR 24; EIR, PER and EMR); Eskom Regulation 36-681; Eskom Standard 240-62196227		In-progress / continuous
			2)pressurised systems	RS6	1)Inhalation	Safety	1) gas leaks, heat treatment 2)improper storage of cylinders, heat transfer	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatality, injuries and property damage	1)proper ventilation, use of PPE 2)routine inspections, flashback arrestors, competency, 3)routine inspections, good housekeeping/cable management, use of lanyard on hoses 4)use of appropriate PPE, use of welding screens, fire watch, hot work permit	4	B	III	Mostly effective	Training & awareness, co-ordination permit	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.27-28, 8.3.36, OHS Act (GSR 9 and DMR 9), Eskom Regulation 36-681 and Eskom Standard		In-progress / continuous	
Hot work	R	KS08	1)gas& fumes	RS7	2)Fire & explosions	Safety	2) Fire & explosions	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatality, injuries and property damage	1)proper ventilation, use of PPE 2)routine inspections, flashback arrestors, competency, 3)routine inspections, good housekeeping/cable management, use of lanyard on hoses 4)use of appropriate PPE, use of welding screens, fire watch, hot work permit	4	C	II	Mostly effective	Training & awareness, co-ordination permit	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.27-28, 8.3.36, OHS Act (GSR 9 and DMR 9), Eskom Regulation 36-681 and Eskom Standard		In-progress / continuous	
			2)compressed cylinders	RS8	3) Slips, Trips & Falls, whiplash	Safety	3) Slips, Trips & Falls, whiplash	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatality, injuries and property damage	1)proper ventilation, use of PPE 2)routine inspections, flashback arrestors, competency, 3)routine inspections, good housekeeping/cable management, use of lanyard on hoses 4)use of appropriate PPE, use of welding screens, fire watch, hot work permit	4	C	II	Mostly effective	Training & awareness, co-ordination permit	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.27-28, 8.3.36, OHS Act (GSR 9 and DMR 9), Eskom Regulation 36-681 and Eskom Standard		In-progress / continuous	
			3)cables & hoses	RS9	4) UV exposure & fire	Safety	4) UV exposure & fire	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatality, LTI, minor injuries and property damage	1) Weather monitoring 2) controlled access point 3) competency	6	B	III	Fully effective	2) Jibkey rings & signages	Audits & Inspections	EP Manager	KET SHE Specification 3.42, Emergency Preparedness Plan 240-26297330		In-progress / continuous	
			4)sparks, arch & flames	RS10	1)lightning strikes	Safety	1) Natural phenomenon 2)unprotected water courses	KET Employees and Contractor's Employees	EP Manager	Adhoc Basis	fatalities	1) Weather monitoring 2) controlled access point 3) competency	6	B	III	Fully effective	2) Jibkey rings & signages	Audits & Inspections	EP Manager	KET SHE Specification 3.42, Emergency Preparedness Plan 240-26297330		In-progress / continuous	
Working in open spaces and on structures	R	KS11	Adverse weather conditions lightning storms, floods, heavy rains and strong winds	RS11	2)drrowning 3)collapsing structures	Safety	2)drrowning 3)collapsing structures	KET Employees and Contractor's Employees	EP Manager	Adhoc Basis	fatalities	1) Weather monitoring 2) controlled access point 3) competency	6	B	III	Fully effective	2) Jibkey rings & signages	Audits & Inspections	EP Manager	KET SHE Specification 3.42, Emergency Preparedness Plan 240-26297330		In-progress / continuous	
			1)hazardous atmosphere and substances	RS12	1)Asphyxiation & Oxygen Enrichment, Airborne Combustable dust/vapours	Safety	1) Asphyxiation & Oxygen Enrichment, Airborne Combustable dust/vapours	KET Employees and Contractor's Employees	EP Manager	Adhoc Basis	fatalities	1) Weather monitoring 2) controlled access point 3) competency	6	B	III	Fully effective	2) Jibkey rings & signages	Audits & Inspections	EP Manager	KET SHE Specification 3.42, Emergency Preparedness Plan 240-26297330		In-progress / continuous	
				RS13	2)Electrocution, fire & explosions	Safety	2) Electrocution, fire & explosions	KET Employees and Contractor's Employees	EP Manager	Adhoc Basis	fatalities	1) Weather monitoring 2) controlled access point 3) competency	6	B	III	Fully effective	2) Jibkey rings & signages	Audits & Inspections	EP Manager	KET SHE Specification 3.42, Emergency Preparedness Plan 240-26297330		In-progress / continuous	
				2) Electrical & mechanical Equipments	RS14	3) animal bite & stings	Safety	3) animal bite & stings	KET Employees and Contractor's Employees	EP Manager	Adhoc Basis	fatalities	1) Weather monitoring 2) controlled access point 3) competency	6	B	III	Fully effective	2) Jibkey rings & signages	Audits & Inspections	EP Manager	KET SHE Specification 3.42, Emergency Preparedness Plan 240-26297330		In-progress / continuous
Working in confined space	R	KS12	1)hazardous atmosphere and substances	RS15	2)defective equipment, insufficient earthing	Safety	2) defective equipment, insufficient earthing	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Loss of Consciousness, Injuries, Fatality, property damage, fire & explosions	1) regular inspection, training and awareness 2) load maintenance and inspection 3) competency and vehicle maintenance	4	C	II	Mostly effective	Review safe work procedures, Check Effectiveness Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40, General Safety Regulations 5		In-progress / continuous	
			2) Electrical & mechanical Equipments	RS16	3) animal bite & stings	Safety	3) animal bite & stings	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Loss of Consciousness, Injuries, Fatality, property damage, fire & explosions	1) regular inspection, training and awareness 2) load maintenance and inspection 3) competency and vehicle maintenance	4	C	II	Mostly effective	Review safe work procedures, Check Effectiveness Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40, General Safety Regulations 5		In-progress / continuous	
			3) animals	RS17	4) drowning & electrocution	Safety	4) drowning & electrocution	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Loss of Consciousness, Injuries, Fatality, property damage, fire & explosions	1) regular inspection, training and awareness 2) load maintenance and inspection 3) competency and vehicle maintenance	4	C	II	Mostly effective	Review safe work procedures, Check Effectiveness Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40, General Safety Regulations 5		In-progress / continuous	
			4) Foods	RS18	5) Entrapment, entrapment & entanglement	Safety	5) Entrapment, entrapment & entanglement	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Loss of Consciousness, Injuries, Fatality, property damage, fire & explosions	1) regular inspection, training and awareness 2) load maintenance and inspection 3) competency and vehicle maintenance	4	C	II	Mostly effective	Review safe work procedures, Check Effectiveness Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40, General Safety Regulations 5		In-progress / continuous	
Transportation of Materials	R	KS15	5) Limited Access, Egress & workspace	RS19	6) heat & cold stress	Health	6) heat & cold stress	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Loss of Consciousness, Injuries, Fatality, property damage, fire & explosions	1) regular inspection, training and awareness 2) load maintenance and inspection 3) competency and vehicle maintenance	4	C	II	Mostly effective	Review safe work procedures, Check Effectiveness Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40, General Safety Regulations 5		In-progress / continuous	
			6) temperature extremes	RS20	7) hearing loss	Health	7) hearing loss	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Loss of Consciousness, Injuries, Fatality, property damage, fire & explosions	1) regular inspection, training and awareness 2) load maintenance and inspection 3) competency and vehicle maintenance	4	C	II	Mostly effective	Review safe work procedures, Check Effectiveness Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40, General Safety Regulations 5		In-progress / continuous	
			7) noise	RS21	8) slip and falls	Safety	8) slip and falls	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Loss of Consciousness, Injuries, Fatality, property damage, fire & explosions	1) regular inspection, training and awareness 2) load maintenance and inspection 3) competency and vehicle maintenance	4	C	II	Mostly effective	Review safe work procedures, Check Effectiveness Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40, General Safety Regulations 5		In-progress / continuous	
			8) poor lighting	RS22	9) uneven & slippery surfaces	Safety	9) uneven & slippery surfaces	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Loss of Consciousness, Injuries, Fatality, property damage, fire & explosions	1) regular inspection, training and awareness 2) load maintenance and inspection 3) competency and vehicle maintenance	4	C	II	Mostly effective	Review safe work procedures, Check Effectiveness Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40, General Safety Regulations 5		In-progress / continuous	
Manual handling	R	KS20	9) surfaces	RS23	falling materials /loads; spillage	Safety	falling materials /loads; spillage	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Loss of Consciousness, Injuries, Fatality, property damage, fire & explosions	1) regular inspection, training and awareness 2) load maintenance and inspection 3) competency and vehicle maintenance	4	C	II	Mostly effective	Review safe work procedures, Check Effectiveness Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40, General Safety Regulations 5		In-progress / continuous	
			1) improper stacking/securing of loads 2) uneven roads 3) mode of transportation	RS24	(1) Overloading, unsecured loads, poor lifting technique (2) Restricted/congested work area, task requirements (3) Poor design of storage/work area, poor illumination, poor housekeeping (4) Equipment failure, poor handling technique	Safety	(1) Overloading, unsecured loads, poor lifting technique (2) Restricted/congested work area, task requirements (3) Poor design of storage/work area, poor illumination, poor housekeeping (4) Equipment failure, poor handling technique	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), (2) Rotation of team, SWP (3) Proper stacking and storage, good housekeeping, supervision, proper access/egress (4) Inspections, maintenance, proper body position (away from the line of fire) 5) Installation of build in bins.	5	D	I	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	
			(1) heavy loads	RS25	pinch points	Safety	pinch points	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			(2) ergonomics	RS26	1) Poor Ergonomics	Health	1) Poor body postures, Unsafe practice	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
Tightening, hammering and chipping	R	KS22	1) Restricted spaces	RS27	1) Poor Ergonomics	Health	1) Poor body postures, Unsafe practice	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			2) Tools	RS28	2) Pinch point	Health	2) Pinch point	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			3) Dust	RS29	3) Dust inhalation	Health	3) Dust inhalation	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			4) Noise	RS30	4) Noise exposure	Health	4) Noise exposure	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
Drilling	R	KS23	1) Flying debris	RS31	2) Defective tools	Safety	2) Defective tools	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			2) Dust inhalation	RS32	3) Incomplete/ No usage of respiratory equipment	Health	3) Incomplete/ No usage of respiratory equipment	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			3) Noise exposure	RS33	4) No or incorrect usage of hearing protection	Health	4) No or incorrect usage of hearing protection	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			4) Noise exposure	RS34	5) Entrapment, entrapment & entanglement	Safety	5) Entrapment, entrapment & entanglement	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
Piling	R	KS24	1) Falling inside the excavation; employees struck by machinery; wall collapse, noise exposure exposure to exhaust fumes	RS35	1) Falling inside the excavation; employees struck by machinery; wall collapse, noise exposure exposure to exhaust fumes	Safety	1) Falling inside the excavation; employees struck by machinery; wall collapse, noise exposure exposure to exhaust fumes	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			2) Dust inhalation	RS36	2) Dust inhalation	Health	2) Dust inhalation	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			3) Noise exposure	RS37	3) Noise exposure	Health	3) Noise exposure	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			4) Noise exposure	RS38	4) Noise exposure	Health	4) Noise exposure	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
Excavation and Trenching	N	KS25	1) Restricted spaces	RS39	1) Poor Ergonomics	Health	1) Poor body postures, Unsafe practice	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			2) Tools	RS40	2) Pinch point	Health	2) Pinch point	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			3) Dust	RS41	3) Dust inhalation	Health	3) Dust inhalation	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			4) Noise	RS42	4) Noise exposure	Health	4) Noise exposure	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
Concrete works	R	KS26	1) Falling inside the excavation; employees struck by machinery; wall collapse, noise exposure exposure to exhaust fumes	RS43	1) Falling inside the excavation; employees struck by machinery; wall collapse, noise exposure exposure to exhaust fumes	Safety	1) Falling inside the excavation; employees struck by machinery; wall collapse, noise exposure exposure to exhaust fumes	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			2) Dust inhalation	RS44	2) Dust inhalation	Health	2) Dust inhalation	KET Employees and Contractor's Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2 implement lock out procedure 3 on the job training	4	B	III	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10		In-progress / continuous	
			3) Noise exposure	RS45																			

Office work	R	KS48	3)Poor Road conditions	RS50	3) motor vehicle accidents	Health	Ergonomics	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1. Ergonomic awareness 2. use of appropriate ergonomic furnitures	4	C	II	Mostly effective	1. Use of extra back support 2. Conduct ergonomic risk assessment	Ergonomic survey	SHE manager &Support service Manager	Ergonomic regulation &Construction regulation		In-progress / continuous								
		KS49	4) sitting position	RS51	4) body strains	Safety						2	B	II	Mostly effective															
		KS50	1)hot water from hydroboiler	RS52	1) Contact with hot boiler or spilled with hot water	Safety	1) overflowed container, damaged container, improper handling, bumping into, defective hydroboiler.					4	B	II	Mostly effective															
		KS51	2)office furniture & equipment	RS53	2)Edges,pinch points, cut by, ergonomics, glare, fall off/iron	Health	2) defective furniture, improper position.					3	D	II	Fully effective															
		KS52	3) inadequate Building maintenance	RS54	3) Inadequate ventilation,Poor illumination,Leakages,blocked ablation facilities	Health	3) Not following planned maintenance schedule,Delay in Procurement processes	KET Employees and Contractor's Employees	1) Site services manager 2) Occupational Hygiene Officer	Daily/ Monthly	LTI, Section 24 and property damage	2) Indoor Air Quality Survey 3) training and awareness	4	C	II	Mostly effective														
Working in shared spaces	R	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	E	I	Mostly effective	requesting for assistance from co-workers	inspections	General Manager	BCE Act and EE Act		In-progress / continuous									
			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							
			Pandemic		1)Human to human transmission through droplets; 2)transmission through contaminated surface		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							
			animal encounter		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							
			Use of lifts (e.g Alimak etc.)	KS56	Equipment operation at heights	RS57	1) brake failure; equipment dropping; strong winds; equipment running out of control	Safety	1) Mechanical Failure, Overloading, Unauthorized 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					
Site-wide lighting	R	KS57		RS59	2) equipment (parts) breaking; material dropping from heights		Trip and fall.	1) Poor coordination amongst the contractors and KET, 2) Lack of lighting maintenance, 3)	KET Employees and Contractors Employees	Construction Managers and supervisors	Daily	property damage , injuries	2) Inspection and use of genuine parts	4	B	II	Fully effective	Barometers for operators or wind monitoring information communicated to operators	Inspections and surveys	Contractor SHE Managers, Contractor Managers	OHSAct and lift, escalators & passenger conveyor regulations		In-progress / continuous							
			Poor lighting/ visibility on construction areas	RS60	1)poor illumination	Health	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														
			1) night conditions	RS61	Struck by and pinch point	Safety											head lamps and torches								Inspections and surveys	Contractor SHE Managers, Contractor Managers	OHSAct and Environmental and Facilities regulations		In-progress / continuous	
			vehicles and facility doors	RS62		Safety	Poor maintenance, Lack of concentration, lack of knowledge/ awareness (restricted areas) 2) Adverse weather condition	KET Employees and Contractors Employees	KET and Contractors Managers	Daily	Injury (minor to major)	Inspections, Awareness, warning signages		4	C	II	Mostly effective													
			1) workload	KS61		RS63	1) Fatigue 2) Frustration		1) Overworked; 2) uneven distribution of duties/responsibilities; planned events and acceleration of activities affect the schedule			stress, mental illness	Proper planning (allocation of resources); Eskom assistance program and wellness clinic		3	C	II								Mostly effective					
Opening and Closing of doors	R		2) work hours	RS64	1) Fatigue from working long hours		1) Long hours (overtime) and long travel times outside the feeding towns				1) mental illness (e.g stress) and Motor vehicle incidences	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								
				RS65	1)Harassment 2) Unfair treatment	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(i.e. depression, stress, etc.)absenteeism,Resignation	1) EAP, Internal relation intervention,Diversity management Awareness, Ethics training	2	C	II	Mostly effective														
			3) Inherent work place dynamics	RS66	3) Bullying		1) Power dynamics, Cultural and language difference in the workplace & Immoral				stress, mental illness, depression, absenteeism	EAP, awareness training on code of conduct practices and employees rights	2	C	II	Mostly effective														
				RS67	Less aware of laws and workplace norms		2 ) lack of orientation of new employees .				stress, depressed, absenteeism	EAP, induction and training of new employees		3	C	II								Mostly effective						
			Hot (surfaces ,steam,oil )Fire ,Gas , machinery	RS68	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														
Provision of food and water	R	KS66		RS69	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 standard rev 3		In-progress / continuous								
			food handling, preparation and storage	RS70	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															
			Food conveyer	RS71	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															
			Walk in fridges	RS72	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														
			drinking water	RS73	1)Skin irritations contact with chemicals 2). slip trip and fall 3) cut by tools 4) Burn	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														
Cleaning	R	KS71	1) Chemicals 2) Wet surfaces 3) Tools 4) Hot surfaces (Hydroboils) and water	RS74	1) Instability, fighting, damaging to property	Safety	1) Disputes and disgrantied public / employees	KET public,visitors,employees and Contractors Employees	Security Manager	Adhoc Basis	Fatality, injuries and property damage	Project Labour agreement,Central management forum, stakeholder 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								
				RS75	Cut by,splashed 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														
			Medical waste and biological waste	RS76	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 texting 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														
			Uneven & slippery surfaces, cables, ropes, conduits, pipes,bricks	RS77	Accidental discharge	Safety	Deviation from Procedures, unfamiliar with a specific fire arm	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														
			Fire arms	RS78	Slips, trips and falls	Safety	landscape				Medical and first aid cases	awareness (foot placement) and correct PPE to be worn	4	C	II	Mostly effective														
Horticulture	R	KS76	animal and insects	RS83	Bites and stings	Safety	animal encounter				Fatality, Medical and First aid cases	assess area before carrying out work	5	C	II	Mostly effective	snake catching and relocation													
		KS77		RS84	Pinched points, Cut by and struck by	Safety	Damaged tools , improper handling, congested work areas,working near buildings/vehicles	Contractor,Eskom employees & Visitors	KET and Contractors Managers	Daily	injuries and property damage	inspect before use, employee training, screening and use of alternative equipment	3	C	II	Mostly effective														
		KS78	Hand tools	RS85	Skin irritation and respiratory irritation	Health	allergic reaction				Medical cases	Use of long sleeve overalls , dust mask and job placement	3	B	III	Mostly effective														
		KS79	Vegetation	RS86	Skin intiation and fires	Safety	Fuel and horticultural chemicals				injuries and property damage	Training, Use of chemical as per SDS and correct PPE	3	B	III	Mostly effective														
		KS80	Chemical	RS87	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														
Handling ash	R	KS81	Fly ash dust	RS102	Skin contact	Safety							3	D	II	Mostly effective	Awareness and Air Monitoring	Inspections and audits	Construction Managers		In-progress / continuous									
				RS103	Eye irritation	Safety							3	D	II	Mostly effective														
				RS104	Poor visibility	Safety							3	D	II	Mostly effective														
				RS105		Safety							5	B	II	Mostly effective														
			uncontrolled blasting	RS106	exposure to flying debris	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	R	KS82	Explosives are left unattended to on the construction site		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								
				RS107		Safety																								
				RS108		Safety																								
				RS109		Safety																								
				RS110		Health																								
Road works	R	KS84	Fly rock becomes airborne	RS107		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								
		KS85	Earthworks (Clear and Grub, Layerworks)	RS108	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, lleswaring rules 2. snake catcher	5	B	II	Mostly effective														
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	II	Mostly effective	Awareness, Toolbox talks and VFLs	Hygiene Surveys; Inspections and audits	Construction manager	HCA Regulations and SHE Spec		In-progress / continuous								

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