


Business/Operating unit:				Department:								Next Review Date (every 2 years):				Oct-24				Template identifier:				240-7004802			
Date: 31-May-23								Prepared by:				Name: Anville Rhode Designation: Safety Manager Date: 31 May 2023								Document identifier:				Revision number: 5			
				KET				Refer to Occupational Health and Safety Risk assessment procedure 32-520				Authorized by:								Revision date: 30-Apr-27							
List activity	Activity type (Routine/Non-routine)	Hazard or	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 unexpected.	#	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., victims, members of the public, etc.	Who is accountable for making sure the controls and measures 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.			RCE Risk Control Effectiveness Fully effective Mostly effective Less effective Not effective	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, Completed (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)						
Crane operations	R	K501	1) Adverse Weather Conditions. 2)Crane	RS1	1) Lightning, strong winds and Falling loads, 2) Boom Failure, tipping over and dropped loads	Safety	1) Natural causes. 2) Unstable/uneven ground; improper operation of the crane; Inadequate	KET Employees, Visitors/Employees and Contractor's Employees	Construction Managers, Contractor Managers, Superintendent/Supervisors	Daily	Fatality/injuries and damage to property	1) Weather Monitoring. 2) Training and awareness, inspections and maintenance, compliance to legislation and eskom	4 C B	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 22)									
Lifting & Rigging	R	K502	1) Lifting equipment. 2) Rigging Equipment	RS2	2) Mechanical Failure, Poor communication, Unauthorised operator, lack of barricade	Safety	1) Mechanical Failure, Poor communication, Unauthorised operator, lack of barricade	KET Employees and Contractor's Employees	Construction Managers, Contractor Managers, Superintendent/Supervisors and Crane Coordinators	Daily	Fatalities, injuries and Property damage	1 & 2) Competency and supervision, inspections and maintenance, DSTI, adherence to SWP and SWL	5 C C	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 16, DMR 16, Eskom Standard 36-681)									
Working at heights	R	K503	Height/ elevated position	RS3	3) Sub-standard equipment, Mechanical Failure, Overloading and improper rigging	Safety	1) Unprotected edges, loose/unsecured material 2) Unprotected edges, loose/unsecured material 3) Sub-standard Scaffolding/unsecured conditions	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatalities, injuries	1) FAS Competency and fall protection and prevention systems, personal surveillance provision of appropriate PPE 2) Site inspections, fall protection and prevention systems 3) Competency, inspections and maintenance	5 C C	Mostly effective	Review safe work procedures, check Effectiveness of Maintenance on Equipment, KET employees to be incorporated in contractors Fall protection plan per section 8 of OHS Act), awareness,	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.32, OHS Act (sec 8 & CR 16), Eskom Standard 32-418 & EMS 1095									
Electrical Installations	R	K504	Electricity	RS4	1)Unauthorised access, No-lock out system, Working on a live plant, No earthing	Safety	1)Unauthorised access, No-lock out system, Working on a live plant, No earthing	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, inspections, maintenance & use of drawings 2) Voltage, adherence to life saving rule 1 & 5; competency training and Awareness, fire restraining electrical wiring and installations	4 C B	Fully effective	Task risk Assessment/walk through assessments,use of Arch Flash PPE	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.28 & 3.36, OHS Act (CR 24, ER PER and EMAR), Eskom Regulation 36-681; Eskom Standard 246-									
Commissioning activities	R	K505	1)ectedricity	RS5	1)Electronics, Electrocution,	Safety	1)Unauthorised access, No-lock out system, Working on a live plant, No earthing	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, inspections, maintenance & use of drawings 2) Voltage, adherence to life saving rule 1 & 5; competency training and Awareness, fire restraining electrical wiring and installations	5 C C	Fully effective	Task risk Assessment/walk through assessments,use of Arch Flash PPE	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.28 & 3.36, OHS Act (CR 24, ER PER and EMAR), Eskom Regulation 36-681;									
Hot work	R	K506	2)pressurized systems	RS6	2)uncontrolled release of pressurized releases of compressed systems	Safety	2)uncontrolled release of pressurized releases of compressed systems	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatalities, injuries and property damage	1)proper ventilation, use of PPE 2)personal inspections, good housekeeping/maintenanceUse of lanyard on hoses 3)competency and vehicle maintenance	4 C B	Mostly effective	Training & awareness, co-ordination permit	Audits,BBS PTO Inspections	KET SHE Manager	KET SHE Specification Section 3.27 & 3.33, OHS Act (CR 24, ER PER and EMAR), Eskom Regulation 36-681 and Eskom Standard									
Working in open spaces and on structures	R	K507	1)exposed fumes	RS7	1)exhaustion	Safety	1)exhaustion	KET Employees and Contractor's Employees	EP Manager	Adhoc Basis	Fatality, LTl, minor injuries and exposure damage	1)Weather monitoring 2) controlled access point 3) competency	6 C B	Fully effective	2)lifecycle signs & signages	Audits &Inspections	KET SHE Manager	KET SHE Specification 3.42, Emergency Preparedness Plan 240-2007130									
Working in confined space	R	K508	2)Electrical & mechanical Equipments	RS12	2)Electrocution, fire & explosions	Safety	2)Electrocution, fire & explosions	KET Employees and Contractor's Employees	Construction Managers and supervisors	Daily	Fatalities, injuries and Property damage	1)artificial ventilation, environmental monitoring 2)manoeuvre, safe work procedures 3) inspection prior entry 4) procedures 5) maintenance and inspections 6) adequate ventilation & PPE 7) Personal protection 8)training and awareness	4 C C	Mostly effective	Review safe work procedures, Check Effectiveness of Maintenance	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification Section 3.40; General Safety Regulations 5									
Transportation of Materials	R	K509	1) Improper stacking/securing of loads	RS22	1) Improper stacking/securing of loads	Safety	1) Improper stacking/securing of loads	KET Employees and Contractor's Employees	Contractor SHE Managers, Contractor Managers KET SHE Manager	2 - 4 hours	Fatality, LTI and property damage	1)regular inspection, training and awareness 2) road maintenance and inspection 3) competency and vehicle maintenance	4 C B	Fully effective	Engineering drawings, adherence to load bearing capacity and detailed ergonomics risk assessment to be conducted	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10									
Manual handling	R	K510	2) Ergonomics	RS23	2) Awkward body positioning, repetitive movements	Safety	2) Awkward body positioning, repetitive movements	KET Employees and Contractor's Employees	Construction Manager, Contractor Supervisors, SHE manager and Operators	Daily	Fatalities, injuries and Property damage	1) SWP, buddy systems, pallet/damage, Assistance (lifting mechanical), 2) Rotation of team, SWP 3) Proper stacking and storage, good housekeeping, 4) Rest, maintenance and proper PPE	5 C C	Fully effective	Review safe work procedures, Check Effectiveness of Maintenance on Equipment , 1 in 10 changes of this activity to be done on site	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification 3.31, OHS Act (CR 28, DMR 16, Eskom Standard 32-418)									
Piling	R	K511	1) moving guard	RS28	1) Poor Ergonomics	Health	1) Poor Ergonomics	Contractors Employees	Construction Manager	Daily	LTI, serious injury	1) install additional fixed guards 2) implement lock out procedure 3 on the job training	4 C B	Fully effective	Awareness	Inspection and BBS	KET SHE Manager	KET SHE Specification, DMR 10									
Tightning, hammering and chipping	R	K512	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 2) Inspection and maintenance, SWP and awareness 3) Road maintenance and proper PPE 4) Proper PPE	3 C B	Fully effective	Training & awareness & Behavioural based observations	Audits, Inspections & BBS, Autometric tests	KET Safety Manager	KET SHE Specification 3.28, EMAR 10									
Drilling	R	K513	2) Tools	RS30	2) Punch point	Safety	2) Defective tools	Contractor Employees KET Employees	Contractor SHE Managers, Contractor Managers KET SHE Manager	Daily	LTI, Medical treatment case	1) Rest breaks 2) Inspection and maintenance, SWP and awareness 3) Road maintenance and proper PPE 4) Proper PPE	3 C B	Fully effective	Review safe work procedures, Check Effectiveness of Maintenance on Equipment , 1 in 10 changes of this activity to be done on site	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification 3.28, EMAR 10									
Piling	R	K514	1) Noise	RS31	4) Noise exposure	Health	4) Noise exposure	KET Employees and Contractor's Employees	Construction Managers and supervisors	Weekly	LTI and medical cases	1) SWP, Dust suppression and screens 2) dust suppression and proper PPE 3) Proper PPE	4 C B	Fully effective	Awareness, noise zone demarcation and Hearing protection	Audits and site inspections	KET SHE Manager	SHE Spec, NIHL Rags, HCA regs and CR									
Excavation and Trenching	R	K515	1) machinery or plant	RS32	1) falling inside the excavation; employees struck by machinery; wall collapse; noise exposure exposure to exhaust fumes	Safety	1) poor ground stability; lack of inspection prior excavation; unprotected excavations; uncontrolled man machine interaction; lack of shoring and bracing/shoring and overloading of excavation walls; operating plant	KET Employees and Contractor's Employees	Construction Managers and supervisors	Weekly	Fatalities, injuries and property damage	1) training and competencies; inspections of excavations; plant inspection and maintenance; excavation permit; SWP and work coordination; PPE	3 C A	Fully effective	review SWP, bracing and shoring and	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification 3.35; 3.38, OHS Act (Construction Regulations 13)									
Concrete works	R	K516	2) hand tools	RS42	2) pinch points; struck by; ergonomic risks	Safety	2) substandard tools; working in close proximity; restricted working space; awkward body position and restricted work	KET Employees and Contractor's Employees	Construction Managers and supervisors	Weekly	Injuries	2) tool inspections; SWP and use of PPE	4 C C	Mostly effective	Review safe work procedures, check Effectiveness of Maintenance on Equipment	Audits, Inspections & BBS	Contractor SHE Managers	KET SHE Specification 3.35 & 3.38, OHS Act (Construction Regulations 13) & HCA									
Driving	R	K517	3) excavations	RS43	4) electrocution; flooding	Safety	4) undetected underground services, unknown services	KET Employees and Contractor's Employees	Construction Managers and supervisors	weekly	injuries and property damage	1-3)inadequate PPE, improper handling of equipment, poor positioning, poor house keeping	5 C B	Mostly effective	Review safe work procedures, check Effectiveness of Maintenance on Equipment	Audits, Inspections & BBS	Contractor SHE Managers	KET SHE Specification 3.35 & 3.38, OHS Act (Construction Regulations 13) & HCA									
Excavation and Trenching	R	K518	4) underground services	RS44	1) falling inside the excavation; employees struck by machinery; wall collapse; noise exposure exposure to exhaust fumes	Safety	1) poor ground stability; lack of inspection prior excavation; unprotected excavations; uncontrolled man machine interaction; lack of shoring and bracing/shoring and overloading of excavation walls; operating plant	KET Employees and Contractor's Employees	Construction Managers and supervisors	Weekly	Fatalities, injuries and property damage	1) training and competencies; inspections of excavations; plant inspection and maintenance; excavation permit; SWP and work coordination; PPE	3 C A	Fully effective	review SWP, bracing and shoring and	Audits, Inspections & BBS	KET SHE Manager	KET SHE Specification 3.35; 3.38, OHS Act (Construction Regulations 13)									
Concrete works	R	K519	5) concrete mixture	RS45	1) falling inside the excavation; employees struck by machinery; wall collapse; noise exposure exposure to exhaust fumes	Safety	1) poor ground stability; lack of inspection prior excavation; unprotected excavations; uncontrolled man machine interaction; lack of shoring and bracing/shoring and overloading of excavation walls; operating plant	KET Employees and Contractor's Employees	Construction Managers and supervisors	weekly	injuries and property damage	1-3)inadequate PPE, improper handling of equipment, poor positioning, poor house keeping	5 C B	Mostly effective	Review safe work procedures, check Effectiveness of Maintenance on Equipment	Audits, Inspections & BBS	Contractor SHE Managers	KET SHE Specification 3.35 & 3.38, OHS Act (Construction Regulations 13) & HCA									
Driving	R	K520	1) Motor Vehicle, Buses & Taxis	RS46	1) falling inside the excavation; employees struck by machinery; wall collapse; noise exposure exposure to exhaust fumes	Safety	1) poor ground stability; lack of inspection prior excavation; unprotected excavations; uncontrolled man machine interaction; lack of shoring and bracing/shoring and overloading of excavation walls; operating plant	KET Employees and Contractor's Employees	Construction Managers and supervisors	weekly	injuries and property damage	1-3)inadequate PPE, improper handling of equipment, poor positioning, poor house keeping	5 C B	Mostly effective	Review safe work procedures, check Effectiveness of Maintenance on Equipment	Audits, Inspections & BBS	Contractor SHE Managers	KET SHE Specification 3.35 & 3.38, OHS Act (Construction Regulations 13) & HCA									
Excavation and Trenching	R	K521	2) pedestrians	RS47	2) pinch points; struck by; ergonomic risks	Safety	2) substandard tools; working in close proximity; restricted working space; awkward body position and restricted work	KET Employees and Contractor's Employees	Construction Managers and supervisors	Weekly	Injuries	2) tool inspections; SWP and use of PPE	4 C C	Mostly effective	Review safe work procedures, check Effectiveness of Maintenance on Equipment	Audits, Inspections & BBS	Contractor SHE Managers	KET SHE Specification 3.35 & 3.38, OHS Act (Construction Regulations 13) & HCA									
Concrete works	R	K522	3) Road conditions	RS50	3) Poor vehicle accidents	Safety	3) Poor visibility, weather conditions (fog & mist), use of cellphones	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K523	4) sitting position	RS51	4) sitting position	Health	4) sitting position	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K524	5) concrete mixture	RS52	5) concrete mixture	Safety	5) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K525	6) concrete mixture	RS53	6) concrete mixture	Safety	6) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K526	7) concrete mixture	RS54	7) concrete mixture	Safety	7) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K527	8) concrete mixture	RS55	8) concrete mixture	Safety	8) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K528	9) concrete mixture	RS56	9) concrete mixture	Safety	9) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K529	10) concrete mixture	RS57	10) concrete mixture	Safety	10) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K530	11) concrete mixture	RS58	11) concrete mixture	Safety	11) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K531	12) concrete mixture	RS59	12) concrete mixture	Safety	12) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K532	13) concrete mixture	RS60	13) concrete mixture	Safety	13) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K533	14) concrete mixture	RS61	14) concrete mixture	Safety	14) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K534	15) concrete mixture	RS62	15) concrete mixture	Safety	15) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K535	16) concrete mixture	RS63	16) concrete mixture	Safety	16) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K536	17) concrete mixture	RS64	17) concrete mixture	Safety	17) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K537	18) concrete mixture	RS65	18) concrete mixture	Safety	18) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K538	19) concrete mixture	RS66	19) concrete mixture	Safety	19) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K539	20) concrete mixture	RS67	20) concrete mixture	Safety	20) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K540	21) concrete mixture	RS68	21) concrete mixture	Safety	21) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K541	22) concrete mixture	RS69	22) concrete mixture	Safety	22) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces (COVID- 19 C19 OHS)									
Excavation and Trenching	R	K542	23) concrete mixture	RS70	23) concrete mixture	Safety	23) concrete mixture	KET Employees, Contractor Employees	Fleet Manager	Daily	Medical	1) Encourage work from home if possible, mandatory wearing of protective mask in public, wearing 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 C	Mostly effective	Disinfection of transports and offices, mandatory PPE signage to be posted, enforce social 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 workplaces									

workplace Psycho-Socio & Human Factors			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 Foremen Forums, Safety vehicle campaign, installation of door transparency screens 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				
	R	KS60		RS62	1) Fatigue 2) Frustration	Safety					stress, mental illness	Proper planning (allocation of resources), Eskom assistance program and wellness clinic	4	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				
	R	KS61	1) workload	RS63			1) Overworked; distribution of duties/responsibilities; planned events and acceleration of activities affect the schedule						3	C	II	Mostly effective								
	R	KS62	2) work hours	RS64			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				
	R	KS63	3) Inherent work place dynamics	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),e. depression, stress, etc. Jobseekers, Resignation	1) EAP, Internal relation intervention, Diversity management Awareness, Ethics training	2	C	II	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				
	R	KS64				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	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; OHS&S Act Sec 14 Basic conditions of service, basic condition of employment Act and labour relations Act					
	R	KS65				2) lack of orientation of new employees .				stress, depressed, absenteeism	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					
	R	KS66																						
	Provision of food and water			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	Regular Audit inspections	Inspections	Support Service Manager	FCD Act : Food Hygiene and safety management standard rev 3			
		R	KS68		RS68	expired food, and Food contamination		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			
R		KS67	food handling, preparation and storage	RS69	pinch point	Health	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		Regular Audit inspections	Inspections	Support Service Manager	FCD Act : Food Hygiene and safety management standard rev 3				
R		KS68	Food conveyer	RS70		Safety	suffocation	Contractor ,Eskom employees & Visitors	site services	Daily	Fatalities ,medicals	SWP, Training , maintenance , safety lock system	5	B	II		Regular Audit inspections	Inspections	Support Service Manager	FCD Act : Food Hygiene and safety management standard rev 3				
R		KS69	Walk in fridges	RS71	contaminated water	Health	Not adhering to the swp .				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 standard rev 3				
Cleaning	R	KS70	drinking water	RS72		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	Awareness campaigns	Inspections	Support Service Manager	OHS Act; HCA Regulation Facilities rev 9				
	R	KS71	1) Chemicals 2) Wet surfaces 3) Tools 4) Hot surfaces (Hydracals) and 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	Intelligence gathering, Periodical refresher training and Mock drills	Mock drills	Security Management	PLA agreement, Criminal Law Procedure Act, Labour Relation Act			In progress	
Site and Public Unrest	N	KS72	1) Violent Uncontrolled people	RS74	1) Disputes and disgruntled public / employees	Safety		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	Awareness	Inspections and audits	Support service manager	NEIMWA				
Waste Handling	R	KS73	Medical waste and biological waste	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	Awareness and site rules (i.e no running and no testing while walking), drainage/ detour of walkways during rainy seasons	Inspections and audits	KET Management	OHS Act and SHE Spec. 3.102				
Walking on site	R	KS74	Uneven & slippery surfaces, cables, ropes, conduits, pipes, bricks	RS76	Slips, trips and falls	Safety	Poor housekeeping, liquid spillages, lack of maintenance and poor design of infrastructures and surfaces	Contractor ,Eskom employees & Visitors	KET and Contractors Managers	Daily	LTI, Medical and first aid	Promote housekeeping, barricading hazardous area, maintenance of buildings and structures, designated walk ways and wearing of safety boots on site	4	C	II	Mostly effective	Re-refresher awareness and shift manager to over see process	Inspections	Security Management	NKPAP and Fire arms control Act				
Handling fire arms	R	KS75	Fire arms	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								
Horticulture			Uneven surfaces	RS83	Slips, trips and falls	Safety	landscape				Medical and first aid cases	awareness (boot placement) and correct PPE to be worn	4	C	II	Mostly effective	snake catching and relocation							
			animal and insects	RS84	Bites and stings	Safety	animal encounter				injuries and property damage	inspect before use, employee training, screening and use of alternative equipment	3	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 No. 49 of 1947) and Health and SafetyAct (Act 85 of 1993),				
			Hand tools	RS85	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	Medical cases	Use of long sleeve overalls, dust mask and job placement	3	B	III	Mostly effective	Awareness							
			Vegetation	RS86	Skin irritation and respiratory irritation	Health	allergic reaction				injuries and property damage	Training, Use of chemical as per SDS and correct PPE	3	B	III	Mostly effective	Awareness							
	R	KS86	Chemical	RS87	Skin irritation and fires	Safety	Fuel and horticultural chemicals																	
Handling ash			Ash inhalation	RS102		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	Inspections and audits	Construction Managers					
	R	KS100	Fly ash dust	RS103	Skin contact	Safety																		
	N			RS104	Eye irritation	Safety																		
				RS105	Poor visibility	Safety					ad hoc		5	B	II	Mostly effective	Temporary stop activities				HCA Regulation			

		RISK MATRIX				
Consequences	6	I	I	I	I	I
	5	II	II	II	I	I
	4	III	III	II	I	I
	3	IV	III	II	II	I
	2	IV	IV	III	II	II
	1	IV	IV	III	III	III
		A	B	C	D	E
		Likelihood				

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.