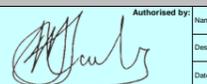


Occupational Health and Safety Baseline risk assessment template																												
Business/Operating unit:	Lethabo Refurbishment Project										Department:	Lethabo Refurbishment Projects					Next Review Date (every 2 years):		Template Identifier:	240-7004602								
Date:	16/11/2022										Prepared by:	Lethabo Refurbishment Team					Authorised by:	 Name: Mdu Ncube Designation: Site Manager Date: 23 November 2022					Document Identifier:		Revision number:	5		
Refer to Occupational Health and Safety Risk assessment procedure 32-520																												
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	Control Owner	Control Effectiveness	Control Status	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 and the personnel involved in the task.	Indicate R or N 1. Routine activities and situations these 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(s) is exposed to the hazard e.g. Daily for 3 hrs.	Consider the worst 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 again once additional controls have been implemented and those controls	Control Owner	Control Effectiveness	Control Status	Risk Priority Rating	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 again once additional controls have been implemented and those controls	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)					
Establishing site laydown area	N	1	Unsafe methods utilized for the loading (displacement) & unloading of office buildings and containers (Site laydown area)	1.1	Mobile office buildings being dropped	Safety	Untrained employees, no safe working statement, no supervision	1. Train ing 2. Appoint competent supervisor 3. Develop safe work procedures 4. Compliance to SHE specification 5. Conduct a task specific risk assessment.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Training, Supervision, Method statements, Client SHE specification	5	C	II	Mostly effective	Rigging study to be conducted for each lifting & rigging operation. Planned job observations done by supervisors	Inspection, document review, audits	Rigger, SHE Personnel, Supervisors	Eskom Safe use of lifting machines and lifting tackle procedure 32-06, CR 2014 regulation 19, SHE specification	Dec-30	In progress					
			Large number of new employees starting the project at once	1.2	New employees getting injured from their new activities	Safety	Employees not fully aware of all the risks and hazards of the plant and the tasks/activities they are involved in, leading to personal injuries	1. Induction training 2. Train all employees on Hazard Identification and Risk Assessment 3. Conduct DSTI prior any activities 4. Conduct frequent VFLs 5. Direct supervision	Employees, Visitors, Contractors	Project Manager	Daily	Medical treatment case, occupational disease with reversible/non-permanent effect	Induction sessions with all employees, Procedures done for all employees, Risk	3	C	II	Mostly effective	Planned job observations done by supervisors; recruitment agencies (during interviews, they check to see employees are safely oriented, BBS inspections)	Supervision, continuous monitoring.	Supervisors; SHE Personnel, Contracts managers	SHE Specification, OHS&S Section 13 CR; Eskom Procedures; Contractor Procedures	Dec-30	In progress					
			Location of services are unknown	1.3	Damage to existing services (water, sewerage & electricity)	Safety	No services mapping/ drawings. Scanning of underground services not done.	1. Develop drawing for utility services unexcavated.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Training, Supervision, Method statements, Client SHE specification	5	C	II	Mostly effective	Underground services drawing to be provided to the contractor in order to avoid damage to services. Contractor to scan for unknown services prior to excavating any excavation. Planned job observations done by supervisors	Permit to work, Geo-tech scanning and drawings	Supervisors; SHE Personnel	CR 2014 regulation 13, SHE specification, Method statement and risk assessment.	Dec-30	In progress					
			Open excavations	1.4	Personnel falling into open excavations	Safety	No solid barricading on excavations	1. Place warning signs 2. Develop an excavation method statement/procedure 3. Develop a task specific risk assessment. 4. Compliance to SHE specification 5. Conduct an awareness training on excavation.	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Barricading excavations with solid barricading, Training, Procedures, Method statements, SHE specification	4	C	II	Mostly effective	Place signs for visibility if excavation is left overnight. Supervision by competent person.	Direct supervision of excavation work. Daily inspections.	Supervisors; SHE Personnel	CR 2014 regulations 13, SHE specification, Method statements and RA	Dec-30	In progress					
			No electrical available to authorized electrical distribution boards	1.5	Electrical supply utilized without C.O.C.'s	Safety	Non-compliance to legal & Eskom requirements	1. Appoint an electrician 2. Appoint a competent supervisor 3. Provide checklist for site establishment.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Supervision, Training, Procedures, Method statements, SHE specification, Appointed & authorized electricians	5	C	II	Mostly effective	Method statements to ensure that no electrical distribution boards are engaged and utilized prior to them receiving a C.O.C from an electrician. Planned job observations done by supervisors	Permit to work system correctly applied. Responsible person appointments sign-off. Weekly inspections	Supervisor, Electrician	SHE specification, CR 24	Dec-30	In progress					
			Inefficient laydown areas or space designated for project purposes	1.6	Congestion of buildings & vehicles at the site office laydown area	Safety	Poor planning & design	1. Contractor to submit site layout plan for approval.	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Legislation, Training, Supervision, Procedures, Method statements, Client SHE specification, Planning & design	4	C	II	Mostly effective	Laydown areas plans to take buildings, stores and mobile plant & machinery into account when being designed. Planned job observations done by supervisors	Planning, Inspections and Acceptance	Supervisors, Contract managers, SHE Personnel	OHS&S Act, Section 8, CR 2014 regulation 5(6), CR 2014 regulation 6(b)	Dec-30	In progress					
De-establishing site laydown area	N	2	Electrical points are not de-energized before disconnecting supply points (Lock-out permit etc)	2.1	Employees can come into contact with live electrical points and get electrocuted.	Safety	No procedure, Poor supervision, No inspection, isolation not done, No permit to work.	1. submit de-establishing methodology. 2. Submit re-establishment plan prior. 3. Disconnect of all utility services. 4.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Training, Supervision, Procedures, Method statements, SHE specification, Life saving rule, Permit to work, Negotiation	5	C	II	Mostly effective	Project site de-establishment procedure to be developed and implemented. Planned job observations done by supervisors	Site inspections, De-establishment of site signed off. No incidents reported	Supervisors	CR 2014 regulation 24, Eskom PFR, Eskom CBRMS, Eskom Lethabo EMP, SHE Specification	Dec-30	In progress					
			Unsafe methods utilized for the loading (Site laydown area) of office buildings and containers for removal from site	2.2	Mobile office buildings can slew out of control, strike and injure observers standing close-by	Safety	Untrained employees, No safe working statement, No supervision	1. Train ing 2. Appoint competent supervisor 3. Develop safe work procedures and risk assessment. 4. Compliance to SHE specification 5. Restrict access to the working area.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Rigging study, Training, Supervision, Method statements, SHE specification	5	C	II	Mostly effective	Rigging study to be conducted for each lifting & rigging operation when de-establishing site. Planned job observations done by supervisors	Competent riggers, Rigging study adhered to. Risk assessment correctly identifies and mitigates risk. Barricading prevents access to lifting areas, audits & inspections	Riggers, Supervisors	Eskom Safe use of lifting machines and lifting tackle procedure 32-06, CR 2014 regulation 19, SHE specification	Dec-30	In progress					
Controlling access to the construction site	R	3	No project specific induction developed or implemented	3.1	Employees/visitors/vendors getting injured from unknown hazards of the site.	Safety	Power station induction does not include the project specific risks. Non-compliance to legal & Eskom requirements	1. Align project induction to project risk or site specific risks. 2. Awareness training 3. Displaying of posters within the project.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	A site specific induction programme to be developed by CMO and the Contractor based on the risks identified within the Baseline Risk Assessment, the scope of works and site conditions. Planned job observations done by supervisors	All employees have undergone a GCO induction & Contractor induction (review of induction records)	SHE Manager/SHE Officer	CR 2014 regulation 7(6), SHE specification	Dec-30	In progress					
			Limited or no access control at the construction site	3.2	Persons getting injured due to unauthorized access to the construction site	Safety	Poor access control measures, Poor supervision, Limited staffing requirements, Non-compliance to legal & Eskom requirements	1. Erection of the fence and appoint security company 2. Installation of CCTV	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Access control to be fully implemented and operational during construction activities. (Inclusive of a permittee fencing and workers entry register). Planned job observations done by supervisors	Station gate access control. Permits issued (one day permit for visitors). Access control registers when accessing working areas are signed in & out	Supervisor, Security	GSR regulation 2(1), SHE specification	Dec-30	In progress					
			Barricading around site areas are not man proof according to legal & Eskom requirements	3.3	Persons getting injured due to unauthorized access to the construction site	Safety	Correct type of barricading unavailable on site, Barricading standard undefined, Non-compliance to legal & Eskom requirements	1. Procurement of correct barricading 2. Sufficient barricading standards 3. Develop a site instruction	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Effective solid man-proof barricading to be erected around the construction site (danger tape is not seen as a barricade). Barricading standard to be	Monitoring of barricading to ensure that it is in place by SHE Representatives and supervisors	Supervisor, SHE Personnel	SHE specification	Dec-30	In progress					
			Insufficient or no safety signage posted where required by legal & Eskom requirements	3.4	Persons getting injured due to unknown hazards on site.	Safety	No signage available, Standard for signage not implemented, Non-compliance to legal & Eskom requirements	1. Procurement of safety signages from S&B&B mark holders 2. Sources used signage's or unused from other BU	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Appropriate safety signage to be conspicuously displayed in all languages; Planned job observations done by supervisors	Inspection and plant walks	Supervisors, SHE Manager/SHE Officer	OHS&S Act, section 8(e) & section 13(a), SHE specification	Dec-30	In progress					
			A large group of employees/visitors visit the construction site simultaneously	3.5	Injury of personnel due to the risk of falling from structures.	Safety	Poor access control measures, Poor supervision, Restricted working space, Non-compliance to legal & Eskom requirements	1. Segregated of pedestrian walk ways 2. Follow instructions of the team leader 3. Appoint more supervisors 4. Display warning signages on	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification, Method	5	C	II	Mostly effective	Access to the demolition site to be granted to only a limited group of SHE personnel for inspection purposes. Planned job observations done by supervisors	Site access control, visitors being accompanied when going to site.	Supervisors, Contract managers	OHS Action section 2(1), SHE specification, Eskom access control standard 39-50	Dec-30	In progress					
			Employees/visitors are exposed to the risk of being run over by mobile machinery & equipment	3.6	Injury to personnel	Safety	Poor access control measures, Poor supervision, Restricted working space, Non-compliance to legal & Eskom requirements	1. Erection of the fence and appoint security company 2. Training on supervision and supervisor development program (SDP). 3. Display warning signages on the restricted working space. 4. HRA training.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification, Method statements	5	C	II	Mostly effective	Access to the demolition site to be granted to only a limited group of SHE personnel for inspection purposes. Planned job observations done by supervisors	Site access control, visitors being accompanied when going to site.	Supervisors, Contract managers	OHS Action section 2(1), SHE specification, Eskom access control standard 39-50	Dec-30	In progress					
Welding of steelwork and pipe joint	N	4	Sparks and fire from hot work activities	4.1	Burns	Safety	No screens or fire blankets used to block off sparks, PPE not worn, no method statements and risk assessments, no hot work approval. Exposure to UV rays/light	1. Application of hot work permit 2. Appoint a competent fire warden. 3. Compliance to work hot conditions 4. Partitioning of the hot work area 5. Develop a method statement	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	SHE specification, Method statements, Risk Assessments, Training, Procedures	4	C	II	Mostly effective	Review and signing off of RA before work commences by supervisor and SHE Officer to ensure all preventative measures have been effected	Daily inspections	Supervisor, Fire Warden	SHE Specification, OHS Act, Eskom procedures, General Safety Regulation 9	Dec-30	In progress					
Working in office environment	N	5	Poor access control to offices	5.1	Injuries due to theft	Safety	Poor access control	1. Appoint security personnel/company 2. Install CCTV	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Lock up and regular checking Monthly inspections done on electrical equipment, CCTV.	5	C	II	Mostly effective	Health and safety rep inspections	Prevalence in theft incidents	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress					
			Poor maintenance of equipment.	5.2	Injuries to employees	Safety	Wear and tear of office furniture and mis-use or abuse	1. Remove damaged furniture 2. Monitoring of furniture / SHE rep inspections. 3. Report any damaged furniture 4. Lead defects for damaged equipment	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Monthly inspections done on electrical in the offices and appliances, Health and safety rep inspections, Civil maintenance, BBS and VFL	4	B	II	Mostly effective	Ergonomics awareness and surveys	Inspections and surveys	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress					

			Employees being conveyed in unsafe or undesignated conveyances (Man cages / cherry pickers / Bucket chairs / jacks / any other machinery for working at heights)	Conveyances can fail during hoisting or lowering operations leading to fatalities and injuries.	Non-compliance to legal & Eskom requirements. No authorized person available to certify conveyances. No inspectors conducted by a competent person on man cages.	1. Pre-use inspection of the conveyances 2. Direct supervision 3. Appoint competent LM	Employees, Visitors, Contractors	Project Manager	On occurrence	Multiple fatalities	Supervision, Legislation, Training of operators and operators involved in activity. Procedures, SHE specification	6	C	High	Mostly effective	Only approved and certified conveyances are to be utilized for conveyance of persons to elevated heights. Daily visual inspections are to be conducted on all man cages in operation before being put into use. Planned job observations done by supervisors	Monthly contractor audits will indicate whether inspections are conducted and document as per legal requirements. VFL & BBS observations will indicate at risk behaviours. SHE personnel inspection reports will indicate unsafe actions & conditions	Engineer	SHE specification, OHS Act Section 8 & 10, CR 2014 regulation 8(8), Eskom Working at height procedure 32-418 & Eskom Safe use of lifting machines and lifting table procedure 32-68, BS EN 14002-1:2011 Cranes - Equipment for the lifting of persons, SHE specification	Dec-30	In progress
			Employees are not trained to work at heights	Fall from heights leading to fatalities and injuries.	Training courses unavailable. Shortage of trained employees, deviation by contractor	Suspend all working at heights activities till everyone is trained.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	W/HT training before employees start working by an accredited provider. Legislation, Procedures, SHE specification, monitoring of contractor and employees coming on site (review of training documents)	5	C	High	Mostly effective	All employees required to work at heights or in elevated positions are to be trained to do so, and their names kept on a register for identification. A training register to be developed and kept up to date. Planned job observations done by supervisors	Monthly contractor audits will indicate training compliance. SHE personnel inspection reports will indicate unsafe actions & conditions	SHE Manager/SHE Officer	SHE specification, OHS Act Section 8(2)(a), CR 2014 regulation 8(8), Eskom Working at height procedure 32-418, Eskom Life-saving Rules 2484318227, SHE Specification	Dec-30	In progress
			Inappropriate, incorrect usage of and/or incorrect safety harnesses utilized on site.	Fall from heights leading to fatalities and injuries.	Appropriate harnesses not available. Employees not trained on the correct & safe use of harnesses	1. Selection of appropriate PPE must be done. 2. Conduct Awareness training on the correct use of harnesses. 3. Regular inspections on the harnesses.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Training on working at heights with safe use of safety harnesses. SHE specification, PPE	5	C	High	Mostly effective	The method statement & safe working procedure is to identify the appropriate type of harness required for the task and placed on a register for easy control and management. Audits are to identify all employees required to work at heights and competency training. Planned job	Audits, inspections, VFL & BBS observations will indicate at risk behaviours. Checks on Safety harnesses will indicate damage. Method statements will include the process to be followed for damaged safety harnesses. No incidents are reported	Project Manager	SHE specification, OHS Act Section 8(2)(a), CR 2014 regulation 8(8), SHE specification 00352:2 Personal Protective Equipment against Falls from a Height - Guided type Fall Arrestors on a Fixed Anchorage	Dec-30	In progress
			Employees working in constricted areas in cherry pickers or other conveyance machinery	Fatalities and injuries due to employees being struck by overhead equipment / getting bumped against buildings or other equipment	Miscalculation of spaces for the type of required machinery	1. Develop method statement and risk assessment. 2. Correct PPE.	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Proper planning, Method statement and risk assessment in areas where work will be done, assessing machinery to be used to ensure they are correct for the area where work will be done	4	C	High	Mostly effective	The method statement and risk assessment must make provision that no work is to be conducted underneath overhead material / constricted areas. If this is not feasible, then measures to be put in place to ensure that the hazards and risks are properly identified and mitigated	Review MS and RA, walkdowns, PPEs	Supervisor	OHS Act Section 8 & 12, CR 2014 regulation 8(8), Eskom Working at height procedure 32-418 (section 3.1.5), SHE Specification	Dec-30	In progress
			There is no drop zone designated during work being conducted from an elevated position	Fatalities and injuries due to employees being struck by falling objects	Lack of knowledge, no proper risk assessment done or ineffective mitigating measures are put in place	1. Conduct an awareness training and conduct toolbox talk relevant to the task on hand. 2. Develop a risk assessment and a method statement. 3. Display warning signs. 4. Barricade the dropping zone.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	DSTI indicating need for drop zone where working at heights is done, training for supervisors and risk assessments on working at heights and HIRA, barricading at the bottom where there are employees working at heights	5	C	High	Mostly effective	A drop zone is to be established around the area of elevated work, and such to be indicated in the method statement. DSTI assessments to indicate the risk and discussed at toolbox talks to create awareness. Planned job observations done by supervisors	Inspectors - to identify drop zones and no employees positioned below work being conducted at heights. Review of documented the risk. No incidents reported	Supervisor	OHS Act Section 8 & 12, CR 2014 regulation 8(8), Eskom Working at height procedure 32-418 (section 3.1.5), SHE Specification	Dec-30	In progress
Stacking & Storage	R	14	Materials & equipment are not stored safely or according to legal requirements	Fatalities and injuries due to collapse of stacked or stored materials	Poor supervision, Non-compliance to legal & Eskom requirements. No safe working procedures	1. Train and appoint a stacking supervisor. 2. Train employee on legal and other applicable requirements. 3. Develop a method statement and risk assessment. 4. Supervisors to ensure that equipment is stored as per OEM storage instructions. 5. Enforce compliance to GSR 8 and CR 25. 6. Submit a layout of storage facility for acceptance prior site establishment.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Stowman appointed to ensure proper storage and stacking. Legislation, Training, Procedures, SHE specification.	4	C	High	Mostly effective	Material stores are to be inspected during plant walk & SHE inspections. A stowman is to be appointed to ensure compliance to legislation & Eskom requirements. Planned job observations done by supervisors	Audits & inspections on material stores will indicate compliance.	Supervisors, SHE Personnel, Stowman	GSR regulation 8, CR 2014 regulation 25, Eskom Stacking and Storage Standard - 240-93411424, SHE Specification	Dec-30	In progress
			Storage of fuels on site does not comply with legal requirements	Fatalities and injuries due to theft	Poor supervision, Non-compliance to legal & Eskom requirements. No safe working procedures	1. Develop method statement and risk assessment. 2. Enforcement of the environmental management plan. 3. Training and awareness to supervisor and store personnel. 4. Enforcement of CR 25.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, compliance with Cr requirements for storage of fuel on site	5	C	High	Mostly effective	Fuel stores are to be inspected during plant walk & SHE inspections. A stowman is to be appointed to ensure compliance to legislation & Eskom requirements, capacity of storage facilities indicated for monitoring purposes. Planned job observations done by supervisors	Audits & inspections on fuel storage will indicate compliance.	Project Manager	GSR regulation 4, CR 2014 regulation 28 & 29, SANS 10131:2004 - Above-ground storage tanks for petroleum products, Eskom Stacking and Storage Standard - 240-93411424, SHE Specification	Dec-30	In progress
			Fuel is stored on site without an authorization permit to do so	Burns due to explosions	Poor supervision, Non-compliance to legal & Eskom requirements. No safe working procedures, no determined storage manner and quantities allowed to be on site	1. Enforcement of CR 25. 2. Training and awareness 3. Conduct regular inspection and audits.	Employees, Contractors	Project Manager	Daily	Multiple fatalities	Legislation, Training, Cr Procedures, SHE specification	6	C	High	Mostly effective	No fuel is to be stored on site without a regulatory permit. Planned job observations done by supervisors	Audits & inspections on fuel storage will indicate compliance. No incidents recorded	Project Manager	Petroleum Product Act of 1977, GSR regulation 4, CR 2014 regulation 28 & 29, SANS 10131:2004 - Above-ground storage tanks for petroleum products, Eskom Stacking and Storage Standard - 240-93411424, SHE Specification	Dec-30	In progress
			Receipts used for the storage of hazardous chemicals/oils/fuels are poorly maintained	Burns due to fire ignited from poor management of spillages	Poor supervision, Non-compliance to legal & Eskom requirements. No safe working procedures	1. Enforcement of CR 25. 2. Training and awareness 3. Coaching of the supervisors	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	High	Mostly effective	A stowman is to be appointed. Inspections to be conducted on the condition of receipts for HCS & flammable liquids & fuels. Planned job observations done by supervisors	The appointed stowman ensure all damaged receipts are removed from use. No environmental spillages occur or are reported	Project Manager	SANS 10131:2004 - Above-ground storage tanks for petroleum products, SHE Specification	Dec-30	In progress
Wiring and cable connection	N	15	Cable pulling in a restricted areas	Injuries caused by head bumps	Method statement and risk assessments, PPE, poor illumination	1. Development of safe working procedures and Risk assessment. 2. Use of correct PPE 3. Enforcement of confined space requirements. 4. Confined space training 5. Direct supervision 6. Employees must be medically fit.	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Legislation, Training, Procedures, SHE specification, Risk Assessment (RA), Method Statement (MS), Supervision	4	C	High	Mostly effective	Inspection of working area before any work commences	Frequent inspections on working areas	Project Manager	OHS Act, SHE Specification, Eskom procedures	Dec-30	In progress
			Installing cable racks in restricted areas	Injuries caused by head bumps and hand cuts.	Method statement and risk assessments, PPE, poor illumination	1. Development of safe working procedures and Risk assessment. 2. Use of correct PPE. 3. Add more lights 4. Enforcement of confined space requirements. 5. Confined space training	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Training, MS and RA, Supervision.	4	C	High	Mostly effective	Supervision	Supervision	Project Manager	OHS Act, SHE Specification, Eskom procedures	Dec-30	In progress
			Loose or improper connection of wires.	Burns due to contact with live parts	Exposed electrical parts, detached insulation parts on electrical cords. Frayed cords.	1. Pre-use inspection	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Check cords regularly and replace any damaged or frayed cords immediately. A plug or electrical cord should not be used if it has exposed wiring. Apply test before touch	5	C	High	Mostly effective	Continuous monitoring, awareness and inspections	Supervision	Supervisor, SHE Officer, individual	OHS Act, SHE Specification	Dec-30	In progress
			Poor wiring and defective electric wires.	Burns due to contact with live parts	Exposed electrical parts, detached insulation parts on electrical cords. Frayed cords.	1. Pre-use inspection	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Check cords regularly and replace any damaged or frayed cords immediately. A plug or electrical cord should not be used if it has exposed wiring. Apply test before touch	5	C	High	Mostly effective	Continuous monitoring, awareness and inspections	Supervision	Supervisor, SHE Officer, individual	OHS Act, SHE Specification	Dec-30	In progress
Erection, dismantling & use of scaffolding	N	16	Scaffolding is in an unsafe condition	Fatalities and injuries due to scaffolding collapse	Poor supervision, Non-compliance to legal & Eskom requirements. No safe working procedures. Scaffolding not secured to the existing structure. Scaffolding not inspected as & when required. Scaffolding declared safe when in an unsafe condition, incompetent scaffold erectors and inspectors, poor scaffolding design, not scaffolding design, incompetent scaffolding designer	1. Training and awareness 2. Enforcement of the safety rules 3. Enforcement of CR 16 and SANS 10085 4. Develop a method statement and Risk assessment	Employees, Visitors, Contractors	Project Manager	Daily	Multiple fatalities	Training, MS and RA, Supervision, SHE specification, OHS standard	6	C	High	Mostly effective	A scaffolding design to be approved, inclusive of anchorage points to the existing structure, and inspected as when required for compliance. DSTI prompts for scaffolding inspection before use from supervisor. Planned job observations done by supervisors	Audits & inspections on scaffolding indicate compliance to legal & Eskom requirements. No incidents are reported. All scaffolds are green tagged. Design drawings are in place, review of DSTIs	Project Manager, Designer, Scaffold Supervisor	CR 2014 regulation 6(2) & 16, SANS 10085: The Design, Erection, Use and Inspection of Access Scaffolding, Eskom Working at height procedure - 32-418, SHE Specification	Dec-30	In progress

			Scaffold that has not been inspected/unsafe scaffold being utilised	Facilities and injuries due to scaffolding collapse	Scaffold inspection date lapses, Scaffold not being inspected after bad weather conditions, Scaffold inspected by an incompetent scaffold supervisor after it being erected, No appointed scaffold inspector, Incompetent scaffold erectors, inspectors & supervisors	1. Enforcement of CR 16 and SANS 1008. 2. Training and awareness. 3. Develop method statement and Risk assessment.	Employees, Visitors, Contractors	Project Manager	Daily	Multiple fatalities	Legislation, Training, Procedures, SHE specification, SANS standards, green tag, inspection reports of scaffolding every 7 days, inspection reports of scaffolds after adverse weather conditions, competent scaffolding erectors, supervisors and inspectors	6	C	II	Mostly effective	All scaffolds to be inspected and signed-off by the Contractor prior to being green tagged & handed over. Supervisors & SHE personnel to attend a basic scaffold erection & inspection training course, monitoring of (green tagged scaffolding during walkdowns); Planned job observations done by supervisors	Audits & inspections on scaffolding indicate compliance to legal & Eskom requirements. No incidents are reported. All scaffolds are green tagged. Design coverage are in place, plant walkdowns	Project Manager/Supervisors	CR 2014 regulation 6(2) & 16, SANS 1008; The 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th, 38th, 39th, 40th, 41st, 42nd, 43rd, 44th, 45th, 46th, 47th, 48th, 49th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 58th, 59th, 60th, 61st, 62nd, 63rd, 64th, 65th, 66th, 67th, 68th, 69th, 70th, 71st, 72nd, 73rd, 74th, 75th, 76th, 77th, 78th, 79th, 80th, 81st, 82nd, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 95th, 96th, 97th, 98th, 99th, 100th	Dec-30	In progress
			Persons access the scaffold incorrectly	Injuries caused by slip and fall while accessing the scaffolding	Persons are not trained for working on scaffolds. Persons do not adhere to procedures for accessing scaffolding safely	1. Training and awareness. 2. Participation of employees when conducting a risk assessment. 3. Direct supervision.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury, Irreversible health effects/occupational disease with permanent consequence	Procedures, Training, Supervision, Inspections, BBS Observations	4	C	II	Mostly effective	Only trained personnel to use the scaffold (training manual). Training on 3-point contact during inductions. Risk assessments; Planned job observations done by supervisors	Audits & inspection indicate compliance.	Project Manager/Supervisors, SHE Officer	Eskom Working at height procedure - 32-418, GGD Emergency & Access Scenarios at height procedure - 32-418, SHE Specification	Dec-30	In progress
			Slippery scaffold surface/platform/stairs	Injuries caused by slip and fall while working on scaffolding	Indement weather, Oil spillages, Water leakages or spillages	1. Enforcement of CR 16 and SANS 1008. 2. Training and awareness. 3. Review method statement and Risk assessment. 4. Work stoppage 5. Reinspection of the scaffold.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury, Irreversible health effects/occupational disease with permanent consequence	Procedures, Legislation, Training, Supervision, Inspections, BBS Observations	4	C	II	Mostly effective	Inspection of scaffolds after rain or contractor supervisor after spillages); Planned job observations done by supervisors	Inspection of scaffold on daily basis. Work stoppages during indement weather conditions. No incidents reported. Audits & inspections indicate a safe working behaviour towards scaffolding conditions. Risk assessments & toolbox talks address wet surfaces of scaffolding	Project Manager/Supervisors, SHE Officer, Scaffold Supervisors	Eskom Working at height procedure - 32-418, GGD Emergency & Access Scenarios at height procedure - 32-418, SHE Specification	Dec-30	In progress
			Induction for high voltage operating plant	Electrical shock from scaffolding being electrically shopped causing injuries and fatalities	Errecting scaffolding in close proximity to high voltage operating plant	1. Work stoppage 2. Training and awareness 3. Enforcement of high voltage regulation.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation,	5	C	II	Mostly effective	Errecting of scaffolding built in close proximity to high voltage operating plant on completion of the base of the scaffold, location of high voltage operating plant prior to erecting scaffolding. Planned job observations done by supervisors	No reports of scaffolding being electrically charged	Project Manager/Responsible person (ORHVS)	Electrical Installation Regulations, Operating Regulations for High Voltage Systems (ORHVS), Client SHE Specification	Dec-30	In progress
	R	17	Unsafe methods used to clear debris and materials from site	Employees being struck by rubbles resulting in injuries	No method statement or safe working procedure. Non-compliance to procedures. Reckless employees. Little or no training	1. Training and awareness 2. Develop method statement and risk assessment. 3. Develop a waste management plan.	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury, Irreversible health effects/occupational disease with permanent consequence	Legislation, Training, Procedures, SHE specification	4	C	II	Mostly effective	A method statement is to be developed for and employees trained in the execution thereof. Planned job observations done by supervisors	Supervisors actively manage the removal of rubble & debris. Audits & inspections indicate compliance to procedures. No incidents reported	Project Manager	OHSA Section 8(2)(a) & 14(a), CR 2014 regulation 16(1), Eskom SHE Policy 32-727, SHE Specification	Dec-30	In progress
			Removal of rubble done without an accepted method statement & safe work procedure	Injuries to employees	Non-compliance to legislation & Eskom requirements. Poor supervision	1. Training and awareness 2. Develop method statement and risk assessment.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Method statements are to be developed for each task and employees trained in the safe execution thereof. Planned job observations done by supervisors	Supervisors actively manage the removal of rubble & debris. Audits & inspections indicate compliance to procedures. No incidents reported	Project Manager	Eskom SHEQ Policy 32-727, CR 2014 regulation 16(1), SHE Specification	Dec-30	In progress
			Employees working in the vicinity of the rubble being removed	Employees being struck by rubbles causing injuries and fatalities.	Non-compliance to legislation & Eskom requirements. No or poor access control around the area	1. Training and awareness 2. Develop method statement and risk assessment. 3. Direct supervision.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	A safe working zone is to be implemented and access prevented for all employees during the clearing of rubble & debris. Planned job observations done by supervisors	Supervisors actively manage the removal of rubble & debris. Audits & inspections indicate the risk is being managed. No incidents reported	Supervisor	CR 2014 regulation 16(1), Eskom SHEQ Policy 32-727, SHE Specification, Contractor method statement for demolition and crushing of building rubble	Dec-30	In progress
			Slips, trips and falls.	Injuries to employees	Non-compliance to legislation & Eskom requirements. No or poor access control around the area. No spotter or Ragman available	1. Training and awareness. 2. Develop method statement and risk assessment. 3. Direct supervision. 4. Housekeeping	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury, Irreversible health effects/occupational disease with permanent consequence	Legislation, Training, Procedures, SHE specification, Method statements	4	C	II	Mostly effective	Rubble to be deposited and stored within designated areas and signage to highlight the risks of slip, trip & fall incidents; Planned job observations done by supervisors	Supervisors actively manage & communicate the risk. Audits & BBS observations indicate compliance to method statements and safe work procedures	Supervisor	CR 2014 regulation 16(1), Eskom SHEQ Policy 32-727, SHE Specification, Contractor method statement for demolition and crushing of building rubble	Dec-30	In progress
			Employees working in area with poor housekeeping	Injuries to employees	Non-compliance to housekeeping standards as per contractor SHE Plan, Eskom SHE Spec, (DET1 and OHSAct) Environmental Regulations for Workplaces	1. Training and awareness (Housekeeping standards) 2. Adherence to method statement and risk assessment. 3. Designation for housekeeping personnel (ERW 6)	Employees, Visitors, Contractors	Project Manager	Daily	First-aid treatment case, and temporary discomfort case	Continuous risk done in working areas, two employees allocated to monitor and empty bins when full; housekeeping inspections by ECO and Safety Officers daily	2	C	III	Mostly effective	Housekeeping Strategy to be submitted by contractor on ensuring housekeeping is done continuously. Personnel allocated for housekeeping to remain on site till the end of the outage - Planned job observations done by supervisors	Daily and weekly ECO Reports; daily walkdowns by SHE Officers. Walkdowns twice a week by GCD Personnel with Contractor eye (BBS); walkdown by Contractor SHE Officers	Supervisor	CR 2014 regulation 16(1), Eskom SHEQ Policy 32-727, SHE Specification, Principal Environmental Regulations for Workplaces	Dec-30	In progress
			Dumper/trucks/waste bins are overloaded with and/or unsafely loaded with debris & materials	Injuries and fatalities due to debris & materials falling off the trucks & waste bins.	Poor supervision, Untrained employees utilized for the loading of debris and rubble	1. Training and awareness (Manual handling) 2. Adherence to method statement and risk assessment. 3. Direct supervision.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	All loading of dumper trucks are to be conducted under direct supervision to prevent overloading thereof. Planned job observations done by supervisors	Audits & inspections indicate the trucks & bins are correctly loaded.	Supervisor	CR 2014 regulation 16(1), Eskom Lethabo EMP & SA, SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
	N	18	Employees gain unauthorized access to construction vehicles	Injuries to employees	Non-compliance to legal & Eskom requirements. No safe keeping & management of construction vehicles	1. Enforce Construction Regulation 23 (j) (e) and (f). 2. Implement the locked procedure.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	The method statement must cater for the safety of construction vehicles when left unattended and all drivers trained in the compliance thereof. Planned job observations done by supervisors	Audits & inspection indicate the safe storage of lock-out of construction vehicles. No incidents have been reported	Project Manager	CR 2014 regulation 16(1), CR 2014 regulation 23(2)(e), DMR, SHE Specification, Traffic Management Plan, Access Control Procedure (Gx & Contractor)	Dec-30	In progress
			Construction vehicles do not comply with legal & Eskom requirements	Facilities and injuries due to collision	Requirements for construction vehicles are unknown or undefined	1. Manufacturer's specifications 2. Compliance to Construction Regulation 23 (1) (b)	Employees, Visitors, Contractors	Project Manager	Daily	Multiple fatalities	Legislation, Training, Procedures, SHE specification	6	C	III	Mostly effective	All construction vehicles are to comply with national legislation & Eskom requirements, must be inspected on a daily basis prior to use, and the inspection to be documented on a pre-use inspection check sheet. Planned job observations done by supervisors	Audits & inspections conducted on construction vehicles indicate compliance to legal & Eskom requirements. No incidents reported	GMR 2	CR 2014 regulation 16(1), CR 2014 regulation 23(2)(e), SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
			Construction vehicles are poorly maintained	Vehicle breakdown causing fatalities and injuries.	Non-compliance to legal & Eskom requirements. No maintenance schedules for construction vehicles. Poor supervision	1. Manufacturer's specifications 2. Compliance to Construction Regulation 23 (1) (b). 3. Adherence to Eskom vehicle safety specification.	Employees, Visitors, Contractors	Project Manager	Daily	Multiple fatalities	Legislation, Training, Procedures, SHE specification	6	C	III	Mostly effective	Maintenance schedules are to be implemented for all construction vehicles. Planned job observations done by supervisors	Inspection of maintenance records for all construction vehicles by competent person. No breakdowns of construction & other vehicles occur. No incidents reported	SHE Manager/SHE Officer	CR 2014 regulation 16(1), CR 2014 regulation 23(2)(e), SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
	R	19	Traffic routes are not defined to facilitate safe movement of vehicles, mobile machinery & plant, as well as pedestrians	Injuries to employees	No traffic management plan developed for the project. No designated route indicated	1. Compliance to National Road Traffic Act, 1996 2. Compliance to Construction Regulation 23 (1) (j) 3. Develop a site specific traffic management plan.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	A traffic management plan is to be implemented to ensure the safe trafficking of mobile plant, machinery & vehicles on the construction site; Planned job observations done by supervisors	Flagman are walking in front & behind transportation of materials & equipment. Inspections indicate compliance to transport requirements. Transport of materials & equipment follow the Lethabo traffic routes.	SHE Manager/SHE Officer	CR 2014 regulation 23, SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
			Increased man-machine interfacing risks	Injuries to employees	No traffic management plan developed for the project. No designated route indicated. Poor supervision	1. Compliance to National Road Traffic Act, 1996 2. Compliance to Construction Regulation 23 (1) (j) 3. Develop a site specific traffic management plan. 4. Coaching of the supervisors.	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Designated walking routes are to be indicated within the traffic management plan & operators & employees made aware thereof; induction training to cover the dangers regarding mobile plant & machinery. Planned job observations done by supervisors	Audits & inspections indicate compliance to traffic management principles. No incident reported	SHE Manager/SHE Officer	CR 2014 regulation 23, SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
			Mobile plant, machinery and other vehicles are required to reverse in the presence of people, structures & debris	Collisions resulting in fatalities and injuries	Construction site constraints, Poor traffic management plan development, Poor supervision, No flagman presented during reversing operations	1. Compliance to National Road Traffic Act, 1996 2. Compliance to Construction Regulation 23 (1) (j) 3. Complying to site specific traffic management plan. 4. Coaching of the supervisors. 5. Segregations of walk ways for pedestrians and construction vehicles.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Traffic routes are to be developed to minimize reversing and spotters or flagman are to be utilized if so required. Planned job observations done by supervisors	Flagman are present during transportation activities. No collision or other traffic related incidents have been reported	SHE Manager/SHE Officer	CR 2014 regulation 23, SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
			Persons can be run-over	Fatalities and injuries to employees	Man-machine interfacing, Poor supervision, No spotter/flagman utilized	1. Awareness training for the employees 2. Coaching of the supervisors. 3. Appoint a spotter to control the traffic.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Spotters or flagman are to be utilized if reversing of mobile plant & machinery are required to reverse. Planned job observations done by supervisors	Flagman are present during transportation activities. No traffic related incidents have been reported	Supervisor	CR 2014 regulation 23, SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
			Increased volume of traffic in the power station	Collisions resulting in fatalities and injuries	Additional construction activities	1. Compliance to Construction Regulation 23 (c) (i) & (d) 2. Compliance to National Road Traffic Act, 1996.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification, Speed limits, Traffic management	5	C	II	Mostly effective	Operators & drivers are to be inducted into the traffic requirements of the Mababa PS & observations are to be conducted to ensure compliance thereto; Planned job observations done by supervisors	No traffic incidents have been recorded	SHE Manager/SHE Officer	CR 2014 regulation 23, SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
			Operators & drivers do not adhere to designated traffic routes	Collisions resulting in fatalities and injuries	Poor supervision, Non-compliance to designated routes by operators, Designated route is blocked or unavailable for use	1. Compliance to Construction Regulation 23 (c) (i) & (d) 2. Compliance to National Road Traffic Act, 1996.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	The traffic management plan is to cater for alternative routes if the primary route is blocked; operators & drivers are to be inducted into the compliance thereto; Planned job observations done by supervisors	Supervisors ensure that road routes have been communicated to all drivers and drivers adhere to road rules. No traffic incidents recorded or reported	SHE Manager/SHE Officer	CR 2014 regulation 23, SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
			Employees are exposed to a high volume of traffic when walking from the office complex to the site	Fatalities and injuries to employees	Designated position of offices in relation to the construction site	1. Compliance to Construction Regulation 23 (2) (b).	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Employees are to adhere to the walking paths that are designated for the separation of and minimizing of interfering of man & machine, induction training to highlight man-machine interfacing risks and control; Planned job observations done by supervisors	No traffic related incidents have been reported	SHE Manager/SHE Officer	CR 2014 regulation 23, SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
	R	20	Employees drive unsafely & recklessly whilst on the construction site	Collisions resulting in fatalities and injuries	Non-compliance to legal & Eskom requirements. Poor supervision, Employees under the influence of intoxicating substances are accessing site.	1. Awareness on speed limits on site. 2. Vehicles and driver safety management procedure. 3. Vehicle inspectors 4. Awareness on the life saving rules procedure. 5. Construction management	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification, Speed limits, Traffic management	5	C	II	Mostly effective	Operators & drivers are to be inducted into the traffic requirements of the Lethabo PS & observations are to be conducted to ensure compliance thereto; Planned job observations done by supervisors	Operator (GCCD, Gx and Contractor) and speed limits. Auditing contractors for non-comformances received from GCCD / Gx	SHE Manager/SHE Officer	CR 2014 regulation 23, SHE Specification, Traffic Management Plan (Gx & Contractor)	Dec-30	In progress
			Drivers & passengers do not adhere to legal & Eskom requirements whilst driving (Buckle up/Seat belt)	Fatalities and injuries to employees	Non-compliance to legal & Eskom requirements. Poor supervision, Poor driver discipline	1. Awareness on the life saving rules procedure. 2. Adherence to vehicle and driver safety management procedures.	Employees, Visitors, Contractors	Project Manager	Daily	Multiple fatalities	Legislation, Training, Procedures, SHE specification	6	C	II	Mostly effective	Operators & drivers are to be inducted into the traffic requirements of the Lethabo PS, the legal & Eskom requirements & observations are to be conducted to ensure compliance thereto; Planned job observations done by supervisors	100% alcohol tests are conducted at the main gate & those found under the influence of alcohol are removed from site with immediate effect	SHE Manager/SHE Officer	SHE Specification, Eskom Procedure, Eskom Life Saving Rules	Dec-30	In progress

Management of risks	R	21	Risks assessments are not adequate for the size and nature of the construction activities	Risks are not effectively mitigated & managed resulting in fatalities and injuries.	Incompetent Risk Assessor. Untrained Risk Assessor utilized to conduct risk assessments. Risk assessment to not include a site visit. Risk assessments are generic.	1. Develop a task specific risk assessment. 2. Training on the Hazard Identification and Risk Assessment (HIRA). 3. Risk assessment must be scope specific.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Risk assessments are to be conducted by a competent risk assessor and encompasses the scope of the construction works. Planned job observations done by supervisors	Audits indicate that risks are adequately identified, assessed & mitigated	SHE Manager/SHE Officer	OHS Act section 8(2)(b)-(c), CR 2104 regulation 9, SHE Specification, Eskom Process for health & safety risk assessments procedure 39-13	Dec-30	In progress
			Employees do not conduct risk assessments for new tasks to be performed on site	Fatalities and injuries to employees	Non-compliance to legal & Eskom requirements	1. Awareness training 2. Consequence management.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	The process and activities that trigger the need for a risk assessment must be defined and documented and all employees made aware thereof. Planned job observations done by supervisors	Audits indicate that risk assessments are conducted and cover all the risks associated with activity and that mitigating measures are stated and implemented	SHE Manager/SHE Officer	OHS Act section 8(2)(b)-(c), CR 2104 regulation 9, SHE Specification, Eskom Process for health & safety risk assessments procedure 39-13	Dec-30	In progress
			Employees are unaware of the hazards & risks on site	Fatalities and injuries to employees	Risk assessments are not communicated to employees. No risk assessments are conducted for work to be done. Non-compliance to legal & Eskom requirements	1. Refresher training 2. Coaching 3. Participation of employees when conducting a risk assessment 4. Attending toolbox talks.	Employees, Visitors, Contractors	Project Manager	Daily	Multiple fatalities	Legislation, induction and HIRA Training, DSTI, Procedures, SHE specification	6	C	III	Mostly effective	Employees are made aware of the risks they will be exposed to and the remedial actions to be taken in order to avoid them. Continuous RA is done when scope of work changes. Planned job observations done by supervisors	Supervisors ensure that risk assessments are conducted by a competent person and all risks get identified. Risks are communicated to all employees on a daily basis during toolbox talks. No incidents occur. Audits indicate the adequate manage of site risks, review of DSTI daily	Supervisor	OHS Act section 8(2)(b)-(c), CR 2104 regulation 9, SHE Specification, Eskom Process for health & safety risk assessments procedure 39-13	Dec-30	In progress
			Employees do not participate in risk assessments conducted on the work to be done	Risk assessments do not include special information obtained from the entire team leading to new team members getting injured	Risk assessments are conducted by a limited few, lack of cooperation amongst team members. Risk assessments are generic.	1. Refresher training 2. Coaching 3. Participation of employees when conducting a risk assessment 4. Attending toolbox talks.	Employees	Project Manager	Daily	Multiple fatalities	HIRA done with all team members	6	C	III	Mostly effective	A vertical slice of employees involved in all activities are represented at all risk assessment conducted for the project. Audits focusing on the risk assessment team, scope of work & adequacy of risk identified, review of DSTI by Eskom SHE personnel to ensure all hazards and risks associated with the tasks are included. Planned job observations done by supervisors	Audits indicate that a vertical slice of the team have been used to conduct risk assessments	SHE Manager/SHE Officer	OHS Act section 8(2)(b)-(c), CR 2104 regulation 9, SHE Specification, Eskom Process for health & safety risk assessments procedure 39-13	Dec-30	In progress
Communication & consultation	R	22	Toolbox talks are not held before work commences each day	Fatalities and injuries to employees.	Employees start work late. Poor supervision, non-compliance to legal & Eskom requirements	1. Encourage task based risk assessment 2. Monitoring of morning meetings. 3. Participation on the toolbox talk 4. Employees to alternate on presenting toolbox talk	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Toolbox talks are to be held prior to any work commencing and these must be documented accordingly (include of risks identified and expected). Planned job observations done by supervisors	Audits indicate that toolbox talks are conducted prior to work commencing and all employees sign off thereon	Supervisor	OHS Act section 8(2)(b)-(c), SHE Specification, GCD/CRP SHE 007	Dec-30	In progress
			Toolbox talks do not address work hazards & risks	Fatalities and injuries to employees.	Poor supervision. Non-compliance to legal & Eskom requirements	1. Encourage task based risk assessment 2. Monitoring of morning meetings. 3. Participation on the toolbox talk 4. Employees to alternate on presenting toolbox talk	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	II	Mostly effective	Toolbox talks are to include risks identified during the risk assessment for all tasks to be conducted that day. Planned job observations done by supervisors	Audits on toolbox talks indicate that risks were discussed	Supervisor	OHS Act section 8(2)(b)-(c), SHE Specification, Eskom Process GCD/CRP/SHE 007	Dec-30	In progress
			Employees are under pressure to perform at higher production rates than allows for safe execution of activities	Working at an unsafe tempo that can result in injuries.	Pressure from Site Management & or Supervisors. Programme is under accelerated targets dates	1. Proper planning and ensure adequate resources are enough. 2. Ensure that tasks are completed on time to avoid delays.	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Legislation, Training, Procedures, SHE specification	4	C	II	Mostly effective	A culture must be implemented to prevent production pressure from overriding tasks being performed at a safe tempo. Planned job observations done by supervisors	Supervisors promote SHE Culture on site and ensure employees on policy of urgency of work.	Project Manager, Supervisors	OHS Act section 8(2)(b)-(c), SHE Specification	Dec-30	In progress
			Employees are expected to work extended hours without sufficient breaks in between	Injuries caused by fatigued when working extended hours	Non-compliance to legal & Eskom requirements. Poor labour planning & compliance. Emergency conditions prevail	1. Develop a fatigue management plan. 2. Accurate determination. 3. Work according to the roster.	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Legislation, Training, Procedures, SHE specification	4	C	II	Mostly effective	Working hours must be limited to the legally permissible hours, inclusive of all exemptions, and employees afforded adequate rest periods so as to prevent fatigue. Planned job observations done by supervisors	Supervision from Safety Officers as well as ensure that employees don't work extended hours without breaks and that working hours are kept within the legal requirements. Audit findings indicate compliance to working hours requirements	Project Manager	Basic Conditions of Employment Act, SHE Specification, Client Baseline Risk Assessment	Dec-30	In progress
			Equipment and machinery theft.	Injuries to employees	Poor access control, poor supervision	1. Installation of CCTV 2. Appoint a security guard 3. Conduct an awareness training 4. Develop and implement lockout procedures	Employees, Visitors, Contractors	Project Manager	Daily	First-aid treatment case, and temporary discomfort case	Access control to be adhered to especially in areas of risk for theft.	2	C	II	Mostly effective	Security measures to be applied to safe guard equipment and machinery, site security	Reduction in Theft incidents reported	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Intoxicated employees	Fatalities and injuries to employees.	Personal issues, failure to adhere to life saving, communication breakdown	1. Communication of life saving rule during induction 2. Advancement of life saving rules by each employee. 3. Covering of substance abuse. 4. Awareness in all safety platforms (meetings). 5. Failure to adhere. Life saving rules will lead to disciplinary actions.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Life saving rules, alcohol testing.	5	C	II	Mostly effective	100% testing, random testing off site e.g. Ash dams	Low or no related incidents, no failure due to existing controls, few reported cases at the gate	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Dust exposures related to plant activities.	Breases due to inhalation of dust	Wear and tear. Aging plant. Incorrect or failure to use PPE. Human error. Poor Plant Maintenance	1. Develop method statement and Risk Assessment. 2. Use appropriate method for dust suppression. 3. Use proper PPE 4. Make use of different methods to prevent dust.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Risk assessments and induction prior to entering the power station. Proper use of PPE, defect leaks and VFL inspections, plant accumulating dust activities	4	C	II	Mostly effective	Work stoppages, Outage meeting agenda item	Low or no related incidents (including near misses, BBS reports and complaints), no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Poor air quality i.e. gases and fumes	Breases due to inhalation of gases and fumes	Welding, painting, human behaviour (improper reworking), airborne -dust particles , dosing and other activities.	1. Conduct occupational hygiene surveys 2. Conduct a health risk assessment. 3. Appoint an occupational hygienist.	Employees, Visitors, Contractors	Project Manager	Daily	Medical treatment	Risk assessment, MSDS use, cross ventilation, BBS and VFL inspections, Plant holes are cleaned and maintained	3	C	II	Mostly effective	Refusal to work on SHE concerns	Low or no related incidents (including near misses), no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Slips trips or falls	Injuries to employees	Poor house-keeping, poor supervision, non-adherence to waste management procedures, un-even flooring, incorrect shoes, non-use of handrails, poor illumination, poor stacking and storage practices	1. Training and awareness (housekeeping standards). 2. Adherence to method statement and risk assessment. 3. Designation for housekeeping personnel (ERW 6) 4.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Supervision, BBS and VFL inspections, Risk assessments, PPE issue and maintenance	4	C	II	Mostly effective	Housekeeping, signage, sharing of access point	Low or no related incidents (including near misses, BBS reports and complaints), no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Noise	Noise Induced Hearing Loss	Poor plant maintenance, defect on the units, on compliance to mandatory signage, Poor or lack of use of PPE, Poor Risk Assessment	1. Conduct Noise survey 2. Develop a health risk assessment 2. Awareness training.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Risk assessments and induction prior to entering the Power Station, Proper use of PPE, mandatory signage, plant maintenance	4	C	II	Mostly effective	Noise measurements, disciplinary action for non-adherence, Apply SMIT.	Low or no related incidents (including near misses, BBS reports, complaints. Reported cases of NIHL), no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Lifting & rigging of SO3 tanks	N	24	Load is left in a suspended state for longer than is legally permissible	Collapse of load leading to injuries and fatalities	Failure of lifting machine, Operator or Rigger becomes incapacitated. Power failure occurs during lifting & lowering operations	1. Statutory inspection 2. Work stoppage 3. Develop rigging study. 4. Barricade the drop off zone. 5. Competent personnel should be readily available in case of emergency.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification, Supervision	5	C	II	Mostly effective	The lifting & rigging study is to state what emergency response actions will be taken if at any given time, loads are not suspended. Planned job observations done by supervisors	Supervision from supervisors and riggers ensure that no load gets suspended for longer than necessary. Area is barricaded off. Audits & inspections indicate procedure for lowering suspended loads during power failures	Rigger	CR 2014 regulation 9, CR 2014 regulation 10, Eskom Safe use of lifting machines & lifting tackle 39-98, SHE Specification, DMR 18	Dec-30	In progress
			Employees walk or work underneath suspended loads	Fatalities and injuries due to employees being struck by loads and loads falling onto employees	No standards or procedure in place for working in areas with suspended loads. Poor supervision, no demarcated working / walking areas, no barricading in areas where lifting is taking place, no warning signs displayed, no vehicle blockers	1. Develop a task specific Method statement and Risk assessment for lifting or rigging 2. Display warning signs and barricade the area. 3. Training and awareness 4. Enforcement of the safety rules 5. Enforcement of the safety rules 6. Coaching of the supervisor.	Employee, Visitors, Contractors	Project Manager	On occurrence	Multiple fatalities	Procedures defining working and walking under suspended loads, barricading, vehicle blockers, demarcations, DSTI to warn employees that the area has suspended loads	6	C	III	Mostly effective	Barricading is erected around lifting sites and appropriate signage posted to prevent to prevent access of unauthorized personnel. Whistles are blown to warn employees of a pending lift. Employees are removed from the lifting path prior to the in commencing, walkdowns by GCD personnel	Riggers and supervisors ensure that the area is well supervised, inspectors indicate properly and sufficiently barricaded area so as to prevent access of unauthorized personnel. Whistles are blown to warn employees of a pending lift. Employees are removed from the lifting path prior to the in commencing, walkdowns by GCD personnel	Supervisor	CR 2014 regulation 9, CR 2014 regulation 10, CR 2014 regulation 19, Eskom Safe use of lifting machines & lifting tackle 39-98, SHE Specification, DMR 18	Dec-30	In progress
			Conducting rigging activities in an unsafe manner	Fatalities and injuries due to employees getting crushed under loads / being struck by falling objects	Walking / working under suspended loads, not following procedures	1. Develop a task specific Method statement and Risk assessment for lifting or rigging 2. Display warning signs and barricade the area. 3. Training and awareness 4. Enforcement of the safety rules 5. Enforcement of the safety rules	Employees, Visitors, Contractors	Project Manager	Daily	Multiple fatalities	Barricading off rigging area, vehicle blockers, supervision	6	C	III	Mostly effective	Rigging studies, DSTIs, Method statements and Risk Assessments, direct supervision, red seal riggers. Planned job observations done by supervisors	Planned Job Observations, Daily site walks, Supervision	Riggers, supervisors, SHE Personnel	CR 2014 regulation 9, CR 2014 regulation 10, CR 2014 regulation 19, Eskom Safe use of lifting machines & lifting tackle 39-98, SHE Specification, DMR 18	Dec-30	In progress
			Falling of load due to lifting beams and rigging equipment not being tested and certified safe for use.	Fatalities and injuries to employees.	No SWL tested crane beam installed. Non-compliance to legal & Eskom requirements. Poor supervision	1. Develop a task specific Method statement and Risk assessment for lifting or rigging 2. Display warning signs and barricade the area. 3. Training and awareness 4. Enforcement of the safety rules 5. Coaching of the supervisor.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification, Supervision	5	C	II	Mostly effective	Beam to be certified for lifting & rigging operations. Planned job observations done by supervisor	Inspection of load test certificates, supervision to ensure that no work is done by beams that are not tested, safe working loads indicated on the beams and other lifting devices.	Engineer	DRM Standards, Cranes & Hoists, CR 2014 regulation 9, CR 2014 regulation 10, CR 2014 regulation 19, SHE Specification, DMR 18	Dec-30	In progress
			Incompetent or unskilled riggers utilized for lifting & rigging operations	Fatalities and injuries to employees.	Competent riggers unavailable. Non-compliance to legal & Eskom requirements. Poor supervision	1. Training on rigging. 2. Develop a rigging procedure. 3. Conduct regular inspection 4. Coaching of the supervisor. 5. Regular awareness.	Employees, Visitors, Contractors	Project Manager	On occurrence	Multiple fatalities	Legislation, Training, Procedures, SHE specification, Supervision, Training, Audits	6	C	III	Mostly effective	Only red seal riggers to be utilized for lifting & rigging operations above 10 tons and competent riggers for loads less than 10 tons. Planned job observations done by supervisors	Supervision - only competent riggers are used for rigging	Project Manager, Rigger	CR 2014 regulation 9, CR 2014 regulation 10, CR 2014 regulation 19, SHE Specification, DMR 18	Dec-30	In progress

			No method statement for rigging in place	Fatalities and injuries to employees.	No rigging study in place	1. Stop all rigging activities. 2. Conduct a rigging study 3. Communicate it to all employees.	Employees, Visitors, Contractors	Project Manager	On occurrence	Multiple fatalities	Rigging study, Method Statements, Risk Assessments - Supervision	6	C	High	Mostly effective	Rigging study in place it gets reviewed and approved before work commences and all rigging operations are conducted by a competent rigger. Planned job observations done by supervisors	Supervisors ensure that rigging studies are completed & approved. Audits & inspections indicate compliance to legal & Eskom requirements. No incidents reported	Project Manager, Engineer, Rigger	CR 2014 regulation 7(1)(a) & 8(7)(b), Eskom safe use of lifting machines and rigging tackle procedure 32-96, SHE Specification DMR 18	Dec-30	In progress
			Signals from the rigger during lifting & rigging operations are unclear and incorrect	Fatalities and injuries to employees.	Poor visibility, Poor line of sight between the rigger and operator, Poor supervision, Untrained employees are utilized for rigging & stringing operations, Non-compliance to legal & Eskom requirements	1. Stop all rigging activities. 2. Develop a hazard identification and risk assessment. 3. Use of two way radios. 4. Review the competency certificates prior commencement of activity. 5. Installation of extra lights.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification	5	C	High	Mostly effective	The rigging study/method statement must incorporate the type of communication to place between the operator of stringing machines and the rigger and under what conditions operations are to be halted. Planned job observations done by supervisors	Audits & inspections will indicate compliance and an accepted communication method being utilized. No incidents reported	Project Manager	CR 2014 regulation 7(1)(a), Eskom safe use of lifting machines and rigging tackle procedure 32-96, SHE Specification	Dec-30	In progress
	R	25	Crane falls while operating a lift	Fatalities and injuries to employees.	Mechanical wear & tear on crane components	1. Enforcement of Construction regulation 22 (1) (a) to (k). 2. Conduct pre use inspection.	Employees, Visitors, Contractors	Project Manager	Daily	Multiple fatalities	Legislation, Supervision, Training, OEM requirements	6	C	High	Mostly effective	Area below to be barricaded off and employees removed from the vicinity. Method statements to be developed on process to follow when a load is left suspended	Audits & inspections will indicate that barricading is in place and all employees have been removed from the area	GMR 2, Engineer	OEM requirements, SHE Specification, DMR 2, GMR 2	Dec-30	In progress
			Host falls whilst under load	Fatalities and injuries to employees.	Load shifted, wear & tear on hoist and internal parts, Excessive load above certified capacity placed on hoist	1. Conduct rigging studies and must be approved by a competent person. 2. Compliance to maintenance schedule of the hoist. 3. Ensure the load test certificates are valid. 4. Appoint competent riggers for the works.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Rigging study, Training, Method Statements, Risk Assessments, Supervision, Quality & Annual maintenance inspections	5	C	High	Mostly effective	Only Rigging Team to be allowed within the rigging zone and pre-use inspections to be conducted on all hoists prior to be utilized. Planned job observations done by supervisors	No incidents are reported and all lifts are conducted safely	Project Manager, Construction Manager, Rigger	CR 2014 regulation 18, Eskom Procedure for Safe use of Lifting Equipment & Lifting Tackle 39-98, OEM requirements, SHE Specification	Dec-30	In progress
			Mobile cranes are operated in close proximity to high voltage overhead lines	Fatalities and injuries to employees due to electrocution.	Crane comes into contact with overhead power lines, Electrical flash-over occurs	CR 2014 regulation R(7), Eskom Safe Use of Lifting Machines & Lifting Tackle 39-98, OEM manuals	Employees	Project Manager	On occurrence	Multiple fatalities	Legislation, Method statements, Risk assessment, Training, Supervision, Procedures & Specification, Life-saving rules and Permit-to-work System	6	C	High	Mostly effective	Authorization to work in close proximity to overhead power lines is to be obtained from Transmission and Generation. Method statement to be developed and risks assessed to manage the activity. Planned job observations done by supervisors	Permission is granted by Transmission & Generation. A method statement & risk assessment are developed and employees are trained thereon. No incidents are reported	Electrical Supervisor, Responsible Person (OHNS & PSR)	CR 2014 regulation 24, OHNS regulations, PSR regulations, SHE Specification	Dec-30	In progress
	R	26	Emergency services are not stationed on site after hours	Delayed emergency response resulting and fatalities and injuries to employees.	After hours EMR personnel not catered for	1. Update the emergency response plan to cater for after hours. 2. Display all the emergency numbers	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures & Specification	5	C	High	Mostly effective	The emergency response plan is to include emergency services for employees required to work after normal hours. Planned job observations done by supervisors	Supervision - supervisors to always be in working area for in a case of emergency to immediately notify the first aiders should there be an emergency, and to also notify the station emergency response team. Inspection of first aid boxes by the first aider to ensure that its contents are sufficient and expiry dates are still valid.	SHE Manager/SHE Officer	Eskom Lethabo EMR Plan, GSR regulation 3, Environmental, Occupational Health & Safety Incident Management Procedure 32-96, GCD Emergency preparedness & response procedure 39-28, SHE Specification, OHSAS 18001 element 4.4.7 - Emergency preparedness &	Dec-30	In progress
			Employees untrained or unawareness of the emergency & response plan	Fatalities and injuries to employees.	A EMR Plan has not been developed for the project, Non compliance to legal & Eskom requirements w.r.t EMR	1. Develop a site specific Emergency response plan. 2. Provide competency training to all appointed emergency team.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Legislation, Training, Procedures, SHE specification, Contractor monthly audits, Approval of SHE EM	5	C	High	Mostly effective	Employees are to be trained on the requirements for compliance towards the emergency response plan. Regular drills are to be conducted to ensure constant awareness thereof. Planned job observations done by supervisors	Audits & EMR drills will indicate the level of awareness & readiness of employees	SHE Manager/SHE Officer	Eskom Emergency planning procedure 30-123, GCD Emergency preparedness & response procedure 39-28, Eskom Lethabo EMR Plan, SHE Specification, Lethabo Emergency Procedure LBS00002M REV 04	Dec-30	In progress
			No emergency & response plan in place (rescue of falling from heights victims etc)	Fatalities and injuries due to employees being suspended at heights	No EMR Plan developed for the project, no drills conducted to sensitize employees on what to do in a case of an emergency, no rescuers in place	1. Develop a site specific Emergency response plan. 2. Conduct planned and unplanned drills. 3. The project must have a service level agreement with the local emergency service provider.	Employees, Visitors, Contractors	Project Manager	Daily	Multiple fatalities	Gx Emergency rescuers, Fall protection plan, scaffolding, competent scaffolding erectors and designer, medical fitness certificates, training on working at heights	6	C	High	Mostly effective	An emergency response and Fall Protection Plan is developed to ensure rapid response in emergency situations. Audits indicate compliance to legal & Eskom requirements w.r.t EMR Plans and PFR scaffolding built in areas where employees need to work on with proper guiding; competent scaffolding erectors and designer; medical fitness certificates, training on working at heights. Planned job observations done by supervisors	Inspection of Fall Rescue and Fall Protection Plan before work commences by the GCD and ensuring that the rescue team coverage is sufficient for all shifts, MG and RA, Training records for communicating Fall Protection Plan are submitted before work commences	SHE Manager/SHE Officer/Supervisors	GCD Emergency preparedness & response procedure 39-28, Eskom Lethabo EMR Plan, SHE Specification, Lethabo Emergency Procedure LBS00002M REV 04, CR 10	Dec-30	In progress
	R	27	The project receives a bomb threat	Uncontrolled explosion causing fatalities and injuries to employees.	Sabotage & strike activities	1. The project must have a service level agreement with the local emergency service provider (including SAPS).	Employees, Visitors, Contractors	Project Manager	On occurrence	Multiple fatalities	Lethabo PS Access control & Procedure, Training, Supervision, Security searches, Lethabo PS Evacuation Procedure & emergency drills	6	C	High	Mostly effective	100% security access control & searching of vehicles; Planned job observations done by supervisors	Emergency drills are well coordinated & supported. Security search all vehicles thoroughly with no explosives being found	Project Manager, Supervision, SHE Manager/Officer	CR 2014 regulation 22, SHE Specification, Lethabo Emergency Procedure LBS00002M REV 04	Dec-30	In progress
			Uncontrolled fires rage outside and within the project boundaries	Fatalities and injuries resulting from burns.	Dry grass as a result of the winter period, Flammable materials or liquids ignition, Sabotage, Lightning strikes	1. Conduct fire breaks 2. Conduct housekeeping 3. All flammable liquids must be contained to prevent spillages.	Employees, Visitors, Contractors	Project Manager	On occurrence	Multiple fatalities	Gx Lethabo PS Fire Department, Fire detection system in the parklands, Fire fighting equipment available, Station Fire Department, Emergency evacuation procedure done at every meeting, Evacuation wardens trained & appointed, Emergency assembly points designated, Emergency evacuation signage displayed, Emergency evacuation plan	6	C	High	Mostly effective	Gx Lethabo PS Fire Department, Fire breaks burnt prior to winter the month, Training, Risk assessments; Planned job observations done by supervisors	The fire chief for Gx Lethabo PS confirms that fire breaks have been made & dry vegetation has been removed. Audits & inspections confirm compliance. No incidents reported.	Project Managers, Fire Chief, Supervisors, SHE Manager/Officer	National Environmental Act (NEMA) 107 of 1989, GCD Emergency & Response Procedure 39-28, Gx Lethabo EMP, SHE Specification, OHSAS 18001 Element 4.4.7 Emergency preparedness & response.	Dec-30	In progress
			The project is exposed to natural disasters (storms, floods, heavy winds, tempests and freak earthquakes etc)	Fatalities and injuries to employees.	Natural occurrences outside of human control	1. Ensure that the emergency response plan is communicated to everyone.	Employees, Visitors, Contractors	Project Manager	On occurrence	Multiple fatalities	Eskom National Disaster Management Centre & Plan, Emergency Procedures & Plans, Risk assessment, Contractor SHE Plans, Training, Emergency drills	6	C	High	Mostly effective	The GCD Project Team to coordinate the Emergency evacuation & response plan with the plan of the Gx Lethabo Power Station, Awareness training to be conducted. Planned job observations done by supervisors	Audits, inspections & emergency drills indicate compliance & EMR readiness. No incidents reported	Project Managers, SHE Manager/Officer	National Environmental Act (NEMA) 107 of 1989, GCD Emergency & Response Procedure 39-28, Gx Lethabo EMP, SHE Specification, OHSAS 18001 Element 4.4.7 Emergency preparedness & response.	Dec-30	In progress
			There are no persons trained to carry out the rescue of a person who has fallen and hanging at heights.	Employees are exposed to aggravated injuries resulting in death	Persons hanging at heights for more than the prescribed period of between 8 and 10 minutes		Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Lethabo Refurbishment Project EMR Procedure	5	C	High	Mostly effective	Lethabo Refurbishment Project EMR Procedure 3 EMR Drills to be conducted on an annual basis to ensure EMR team are prepared for unwanted events; Planned job observations done by supervisors	Audit rescue plan	EMR, Construction Manager, Fire & Risk for Gx Lethabo PS	CR 2014 regulation 10, SHE Specification, Contractor Fall Protection Plan	Dec-30	In progress
			Pregnant and breast-feeding women exposed to emergency situation	Increased risk of injuries due to mobility restrictions	Exposure to chemicals, x-rays, working under unfavourable conditions for a pregnant woman, etc	Develop and enforce the Rad active source use procedure.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Code of good practice on the protection of employees during pregnancy and after the birth of a child procedure.	5	C	High	Mostly effective	Medical nurse to attend to pregnant women when necessary. Project management to cater for pregnancies once made known; Planned job observations done by supervisors	Continuous monitoring	Project Managers, Supervision, SHE Manager/Officer, Medical personnel	Basic conditions of employment act 75 of 1997 section 26, SHE Specification	Dec-30	In progress
			Riots, strikes	Injury to persons	Labour disputes, poor management		Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Security control, communication awareness.	5	C	High	Mostly effective	Organized labour management, project managers to discourage poor labour practices	Low or no strikes, no failure due to existing controls.	Safety Dept. and line management, individual responsibility, EP Team Security	Occupational Health and Safety Act 85 of 1993, Lethabo Emergency Procedure LBS00002M REV 04	Dec-30	In progress
	N	28	No procedure exists which governs the management of electrical installations once a plant has been de-classified and no longer falls under the OHNS & PSR regulations	Employees are unaware of the requirements for working on electrical installations thus resulting in injuries and fatalities.	The legal & other requirements pertaining to electrical distribution are not communicated	Initial awareness for Electrical Installations Regulations, Training for non-skilled employees.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Training, Supervision	5	C	High	Mostly effective	A procedure can be developed to govern electrical & lighting distribution when a plant has been de-classified; Planned job observations done by supervisors	A plan has been developed, authorized and implemented to govern electrical & lighting distribution. No incidents are reported	Responsible Person (RP)	CR 2014 regulation 24, Electrical Installations Regulations 06 March of 2009, Environmental Regulations 16 October 1987, SHE Specification	Dec-30	In progress
			Isolations and disconnections take place without the necessary permits in place	Fatalities and injuries to employees.	No standard to assist in defining the permit requirements for electrical & lighting distribution	1. Training and awareness of PSR. 2. Develop a standard procedure to define the permit requirements. 3. Ensure there is prohibition.	Employees, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Legislation, Supervision	5	C	High	Mostly effective	A procedure can be developed to govern electrical & lighting distribution when a plant has been de-classified & train appropriate persons thereon; Planned job observations done	A procedure has been developed and all Project Managers, Construction Managers & Contractors trained thereon.	Responsible Person (RP)	CR 2014 regulation 24, Training, Regulations 06 March of 2009, Environmental Regulations 16 October	Dec-30	In progress

Managing administration office buildings	R	29	There is no operable fire fighting equipment present at the administration buildings	29.1	Fires will not be able to be extinguished timely resulting in employees sustaining burns.	No replacement extinguishers available. No inspections conducted on fire extinguishers	Train employees on Basic Fire Fighting.	Employees, Visitors	Project Manager	On occurrence	Fatality or life threatening health effects	5	C	II	Mostly effective	A competent person is appointed to conduct inspections on all fire extinguishers and to ensure they are replaced as and when required. Planned job observations done by supervisors	Inspections and audits.	FFE Inspector, SHE Reps	Lehlabo PS Emergency Preparedness Mobilization: 240-29806180, Lehlabo Emergency Preparedness Plan, Evacuation, Response and Recovery Planning Procedure - 240-10942634 CR 29	Dec-30	In progress
			No emergency plan has been developed or implemented for the buildings	29.2	Fatalities and injuries to employees	No competent person appointed to compile and EMR Plan	Emergency Preparedness training and appointment of trained employees. Do refresher training.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	5	C	II	Mostly effective	Appoint a competent person to develop and implement a site based EMR Plan. Planned job observations done by supervisors	A competent person has been appointed. Training on the EMR Plan has been executed. EMR Data are managed effectively. No incidents reported	SHE Manager	Lehlabo Emergency Preparedness Plan, Evacuation, Response and Recovery Planning Procedure - 240-10942636 Environment 9 Regulators for Workplace 9	Dec-30	In progress
			Lighting in the building does not meet the minimum legal requirements	29.3	Injuries caused by poorly illumination.	Lights have fused and not replaced	Illumination survey. Have maintenance plan in place. Replace defective lights.	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	C	II	Mostly effective	Safety signage and awareness communication highlighting the poor illumination and associated risks. Planned job observations done by supervisors	Defects are loaded and buildings are clear of all abatement issues. No incidents are reported	SHE Manager	Lehlabo Emergency Preparedness Mobilization: 240-29806180, Lehlabo PS Emergency Preparedness, Evacuation, Response and Recovery Planning Procedure - 240-10942636 Environment 9 Regulators for Workplace 9	Dec-30	In progress
			There is no pest control conducted in the buildings	29.4	Injuries to employees	No contract or SLA in place	SLA to include pest control.	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	C	II	Mostly effective	Buildings are fumigated and no reports of pest infestations occur. Planned job observations done by supervisors	Inspection will indicate that the buildings are clear of all infestations and pests	SHE Manager	Service Level Agreement	Dec-30	In progress
			Defects raised for the buildings are not timely resolved	29.5	Hazardous conditions are prevailing resulting from injuries	No person appointed to manage the defects loaded for the administration buildings	Employees to have access to file to load defects. Employees to do training on SAP notification to load defects. Monitor the close out defects on SAP.	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	C	II	Mostly effective	A person is appointed to manage all defects. Planned job observations done by supervisors	All defects are timely dealt with and the office complex is in a state of good repair.	Project Manager, SHE Manager/ Officer	OH&S Act Section 8(2)(b), Facilities Regulations 9, SHE Specification	Dec-30	In progress
			Electrical cables for appliances are not properly secured	29.6	Tripping hazards causing injuries.	Cables are poorly installed	Reroute the cables to prevent tripping hazards. Use of cable cover.	Employees, Visitors, Contractors	Project Manager	On occurrence	Medical treatment case, occupational disease with reversible/non-permanent effect	3	C	II	Mostly effective	A competent person is appointed to conduct inspections on all cabling in the office complex and to ensure that they are properly tied down. Planned job observations done by supervisors	All cables have been tied back and secured and require inspections are conducted. No incidents are reported	Project Manager, SHE Manager/ Officer	Electrical Installation Regulations 9(1), SHE Specification	Dec-30	In progress
			There are insufficient operable ablation facilities for the office complex	29.7	Exposure to diseases	Staffing compliance increased against the original planned complement. The water supply has been cut off from the ablation facility	Adherence to Facilities Regulation 2 and SANS 0400.	Employees, Visitors, Contractors	Project Manager	On occurrence	Medical treatment case, occupational disease with reversible/non-permanent effect	3	C	II	Mostly effective	Ablation facilities that are not functioning to full capacity are to be reported as ad effect and the maintenance thereof arranged. Planned job observations done by supervisors	There are a sufficient number of ablation facilities for both sexes. No incidents are reported	Project Manager, SHE Manager/ Officer	Facilities Regulations 2, SHE Specification	Dec-30	In progress
			The water supply to the office complex is temporarily cut-off	29.8	Dehydration	There is a shortage of water supply from the station	The Project to organise drinking water for employees upon receiving the notification of water shortage. Use alternative ablation facilities.	Employees, Contractors	Project Manager	On occurrence	Medical treatment case, occupational disease with reversible/non-permanent effect	3	C	II	Mostly effective	Provision has been made for the temporary supply of water during the periods where water is a short supply from the station. Planned job observations done by supervisors	There is a contingency supply of water stored for use when the supply from the station has been limited	Project Manager, SHE Manager/ Officer	Facilities Regulations 2, SHE Specification	Dec-30	In progress
			Offices and Boardrooms are cluttered and congested	29.9	The speedy evacuation of persons during an emergency can be seriously hampered resulting in injuries	Boardrooms were not designed to accommodate the levels of employees making use of them at any one time	1. Regular housekeeping 2. Regular SHE inspections 3. Employees must be held accountable to make sure the working is always clean.	Employees, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	C	II	Mostly effective	Emergency evacuation drills are to be held as per the station requirements taking congested load scenarios into consideration. Planned job observations done by supervisors	Evacuation drills exercised from an overcrowded boardroom were conducted and the evacuation was effected smoothly and without any hindrance	Project Manager, SHE Manager/ Officer	OH&S Act Section 8(2)(b), Facilities Regulations 9, SHE Specifications, Environmental Regulations 5	Dec-30	In progress
			Domestic chemicals are not stored in a safe place	29.1	Accidental consumption of chemicals that came into contact with foodstuffs leading to food poisoning	No storage facility in the kitchen for the storing of domestic chemicals and or chemicals are left unattended on kitchen counters	Proper storage of chemicals. HACCP/EM Training.	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	C	II	Mostly effective	Monthly inspections are conducted by the Health & Safety Representative and SHE Officers on kitchens. Planned job observations done by supervisors	Inspections on kitchens reveal that all domestic chemicals are stored in a safe place. No incidents reported	Project Manager, SHE Manager/ Officer, Hygienist	OH&S Act Section 8(2)(b), Facilities Regulations 9/9, Hazardous Chemical Substances Regulations 3/5/Tables for OCM exposure limits, Lehlabo Project Health Risk Assessment, SHE Specification	Dec-30	In progress
			Damaged furniture is still in use	29.11	Injury to employees	Damaged chairs are not removed for repairs	Update the assets register. Label and quarantine defective furniture. Ergonomics awareness.	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	C	II	Mostly effective	Damaged chairs are removed from service and a defect is loaded onto the system. Planned job observations done by supervisors	SHE Inspectors	Project Manager, SHE Manager/ Officer, Hygienist, SHE Reps	OH&S Act Section 8(2)(b), Facilities Regulations 8, Lehlabo PS Project Baseline/Office Risk Assessment, SHE Specification	Dec-30	In progress
			Air-conditioners are poorly maintained	29.12	Bacteria is built up in the filters of the air-conditioner causing illnesses	Defects are not reported and or timely repaired	Maintenance plan for aircons. Report defective aircons. Awareness training of air conditioners.	Employees, Visitors, Contractor	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	C	II	Mostly effective	Air monitoring assessments are conducted to determine exposure limits to airborne pollutants. Planned job observations done by supervisors	Air monitoring samples indicate that exposure levels to airborne pollutants is well within the OCM required levels	SHE Manager/ Officer, Hygienist	OH&S Act Section 8(2)(b), Hazardous Chemical Substances Regulation 6, Lehlabo Project Health Risk Assessment, SHE Specification, Environmental Regulations for Workplace 2	Dec-30	In progress
			Spill liquids are left unattended on the floor	29.13	Employees may slip on puddles of water or on wet floors and injure themselves.	No cleaning staff available	Spill liquids to be cleaned immediately. Awareness on spillages.	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	C	II	Mostly effective	Daily & Monthly inspections are conducted by the Health & Safety Representative and SHE Officers on kitchens. Safety signage is used during cleaning operations. Planned job observations done by supervisors	Inspections on kitchens indicate that floors are clean and dry. No incidents are reported	Project Manager, SHE Manager/ Officer, SHE Reps	OH&S Act Section 8(2)(b), Hazardous Chemical Substances Regulation 6, SHE Specification	Dec-30	In progress
			Water is boiled making use of the micro-wave oven	29.14	Injuries due to burns	No kettle available to boil water	Procure the necessary resources to execute the works	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	C	II	Mostly effective	Awareness training to be conducted highlighting the risks of boiling water with a micro-wave oven. Planned job observations done by supervisors	Audits indicate that all employees have been trained on the dangers of boiling water with a micro-wave oven. Posters are displayed indicating the warning. Ongoing awareness.	SHE Manager/ Officer	OH&S Act Section 8(2)(b), OCM requirements for the Safe Use of micro-wave ovens, SHE Specification	Dec-30	In progress
			Electrical appliances in the kitchen are defective	29.15	Fatalities and injuries due to electrocution	Defective appliance has not been reported or persons are unaware of the defect	Remove all defective appliances.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	5	C	II	Mostly effective	Regular inspections to be conducted by the H&S Representative and SHE Officers on all appliances. Planned job observations done by supervisors	Inspections and audits conducted by SHE Reps	Project Manager, Person Appointed to Manage Electrical Appliances, SHE Reps	OH&S Act Section 8(2)(b), OCM requirements, SHE Specification	Dec-30	In progress
			The messages received from the intercom system during emergency situations are not clear	29.16	Evacuation not done speedily thus resulting in fatalities and injuries to employees.	No maintenance is performed on the intercom system	Ensure that the intercom is audible work work is performed.	Employees, Visitors, Contractors	Project Manager	On occurrence	Multiple fatalities	6	C	III	Mostly effective	Unclear messages and or defects to the intercom system is to be communicated making use of the defect system. Planned job observations done by supervisors	The intercom works and messages are clear during the testing thereof.	Project Manager, SHE Manager/ Officer, EOD	OH&S Act Section 8(2)(b), SHE Specifications, CHSAS 18001 Element 4.4.7, Emergency Preparedness & Response, Lehlabo Emergency Procedure LBS002024M REV 04	Dec-30	In progress
			There are no appointed Evacuation Wardens	29.17	Fatalities and injuries resulting from employees following incorrect evacuation procedures and routes during an emergency	No persons are trained as Evacuation Wardens	Training and appoint evacuation wardens	Employees, Visitors, Contractors	Project Manager	On occurrence	Multiple fatalities	6	C	III	Mostly effective	Evacuation Wardens to be trained and appointed to assist with the evacuation of persons during an emergency. Planned job observations done by supervisors	Evacuation Wardens are appointed and effectively assist with the safe evacuation of employees during an emergency	Project Manager, SHE Manager/ Officer	OH&S Act Section 8(2)(b), Eskom Procedure for Emergency Plan: 32-123, SHE Specification, CHSAS 18001 Element 4.4.7, Emergency Preparedness & Response	Dec-30	In progress
			There are no appointed First Aiders	29.18	Injured persons do not receive immediate treatment	No persons are trained as First Aiders	Training and appoint first aiders.	Employees, Visitors, Public	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	C	II	Mostly effective	First Aiders are to be trained to level 2 standard and appointed for the project. Planned job observations done by supervisors	First Aiders are appointed and treatment is successfully rendered when injuries took place	Project Manager, SHE Manager/ Officer, First aiders	OH&S Act Section 8(2)(b), Eskom Procedure for Emergency Plan: 32-123, SHE Specification, CHSAS 18001 Element 4.4.7, Emergency Preparedness & Response, General Safety Regulations 3	Dec-30	In progress
			There are no appointed Fire Fighters	29.19	Fire is left to rage out of control resulting in burns.	No persons are trained in basic Fire Fighting	Training and appoint fire fighters.	Employees, Visitors, Contractors	Project Manager	On occurrence	Multiple fatalities	6	C	III	Mostly effective	All employees are trained on the basic use of Fire Extinguishers. Planned job observations done by supervisors	Fire Fighters are appointed and effectively extinguishers fires on occurrence, thus preventing further spreading of fires	Project Manager, SHE Manager/ Officer	OH&S Act Section 8(2)(b), Eskom Procedure for Emergency plan: 32-123, SHE Specification, CHSAS 18001 Element 4.4.7, Emergency Preparedness & Response	Dec-30	In progress
			There is no appointed Fire Fighting Equipment Inspector	29.2	Fire is left to rage out of control resulting in burns.	No person is trained to inspect the Fire Fighting equipment	Training and appoint fire fighting equipment inspector.	Employees, Visitors, Public	Project Manager	On occurrence	Multiple fatalities	6	C	III	Mostly effective	A Fire Fighting Equipment Inspector is appointed and appointed to inspect all Fire Fighting Equipment as per legislative requirements. Planned job observations done by supervisors	A Fire Fighting Equipment Inspector is appointed and all Fire Fighting Equipment is regularly inspected and found to be in order	Project Manager, SHE Manager/ Officer	OH&S Act Section 8(2)(b), Eskom Procedure for Emergency plan: 32-123, SHE Specification, CHSAS 18001 Element 4.4.7, Emergency Preparedness & Response	Dec-30	In progress
			Presence of Asbestos in the area exposing employees to Asbestos dust.	29.21	Asbestosis	Drilling on walls	Drill of walls must be done by an MA approved service provider.	Employees	Project Manager	On occurrence	Medical treatment case, occupational disease with reversible/non-permanent effect	3	C	II	Mostly effective	Identification of Asbestos buildings in area. MS and RA for cutting or drilling through the walls	Monitoring activity to ensure it is done as per the MS and RA	Supervision	OH&S Act, Section 8, CR 2014 regulation 6(6), CR 2014 regulation 6(b), Asbestos Regulation	Dec-30	In progress
Controlling children's access to the plant	N	30	Child / Children working in hazardous environments	30.1	Injuries to employees	Allowing a child to conduct work they are not supposed to	Restrict children on site.	Employees	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	4	B	III	Mostly effective	Contractors to ensure that no child labour takes place in the Project	Supervision in working areas; HR screening	Human Resource manager and Project manager	BCEA sec 44, sec 45 and BCEA regulation on Hazardous work by Children: sec 16 (1)(j) and sec 14(1)(j) of the regulation.	Dec-30	In progress

Disabled person performing work in the station.	R	31	Unfair recruitment and selection	Emotional distress due to discrimination	Employer not wanting to have a disabled employee on their site / company	Ensure that the site promotes the working environment for people living with disability.	Employees, Contractors	Project Manager	On occurrence	Medical treatment case, occupational disease with reversible/non permanent effect	HR Procedures for employment of disabled persons, HR monitoring a fair recruitment process, advertisement in indicating they need disabled persons.	3	C	II	Mostly effective	HR recruitment process to be applied by contractors as well as employing disabled persons and Client to monitor.	Company employment status to be	HR and PM from Client and Contractor	Employment Equity Act, BCEA	Dec-30	In progress
			No wheelchair ramps or lifts in the areas to accommodate disabled personnel	Disabled persons tripping and falling or having to be lifted by their wheelchairs to access areas thus resulting in injuries	Oversight during design of buildings - not catering for the disabled persons	Ensure building, walkways and facilities accommodates people living with disability.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury, Irreversible health effects/occupational disease with permanent consequence	Buildings designs cater for disabled persons	4	C	II	Mostly effective	Designer to ensure building designs cater for the disabled persons, Engineering Specifications, SHE Specifications	SHE and Engineering Specifications and Building designs to be reviewed before buildings are built	Designer and Project Manager	National Building Regulations and SABS (600 Code of Practice and EEA	Dec-30	In progress
			No designated disabled car parking	Disabled persons getting injured by bumping themselves while trying to get out of their cars from a non-designated car parking	Oversight during design of premises car parking lot - not catering for the disabled persons	Ensure building, walkways and facilities accommodates people living with disability.	Employees, Visitors, Contractors	Project Manager	Daily	First-aid treatment case, and temporary discomfort case	Parking designs cater for disabled persons, non-designated parking lots made to have a lot of space around them so a disabled person needs a space to enter	2	B	IV	Mostly effective	Designer to ensure parking lot designs cater for the disabled persons, Engineering Specifications, SHE Specifications	SHE and Engineering Specifications and Building designs to be reviewed before buildings are built	Designer and Project Manager	National Building Regulations and SABS (600 Code of Practice, and EEA	Dec-30	In progress
			Alution facilities not catering for disabled persons	Disabled person falling and getting injured while trying to manoeuvre to get inside the bathrooms or when trying to use the bathroom that does not cater for the disabled	Oversight during design of buildings - not catering for the disabled persons	Ensure building, walkways and facilities accommodates people living with disability.	Employees, Visitors, Contractors	Project Manager	Daily	Medical treatment case, occupational disease with reversible/non permanent effect	Buildings designs cater for disabled persons	3	C	II	Mostly effective	Designer to ensure building designs cater for the disabled persons, Engineering Specifications, SHE Specifications	Building inspectors, SHE and Engineering Specifications and Building designs to be reviewed before buildings are built	Designer and Project Manager	National Building Regulations and SABS (600 Code of Practice and EEA	Dec-30	In progress
Pregnant women performing work in the plant.	N	32	Exposure of pregnant women and unborn child to hazards in the plant	Injury to the employee and unborn child.	Employee not disclosing that they are pregnant to their managers and to the medical station; employees not being aware of their condition; employees not being monitored and being given areas where they can work	Develop a procedure on how and when to report the health status of the employee.	Employees, Contractors	Project Manager	On occurrence	Lost Time Injury, Irreversible health effects/occupational disease with permanent consequence	Employees encouraged to disclose as soon as they aware they are pregnant; OHS reviews MUD of the pregnant women; line manager to monitor the employee to ensure that they stick to the recommendations of the OHS	4	C	II	Mostly effective	Line managers to monitor the pregnant women whilst still working in the plant	Pregnant women to be placed in office environment as soon as the OHS advises so	HR, Occupational Health Nurse, Project Manager, SHE Manager, Employees	Eskom Procedure: Pregnant and breastfeeding women, BCEA	Dec-30	In progress
Breastfeeding women performing work in the plant.	N	33	Exposure of breastfeeding women to hazards in the plant	Injury to employees	Employees not being monitored and being given safe areas where they can work that are chemical free	1. Develop a procedure on how and when to report the health status of the employee. 2. Develop a health risk assessment.	Employees, Contractors	Project Manager	On occurrence	Lost Time Injury, Irreversible health effects/occupational disease with permanent consequence	Line manager to monitor the employee to ensure that they stick to the recommendations of working area until they are done breastfeeding	4	C	II	Mostly effective	Line managers to monitor the breastfeeding women whilst still working in the plant	Education to breastfeeding women, and they must be located preferably in non-chemical environments until done breastfeeding	HR, Occupational Health Nurse, Project Manager, SHE Manager	Eskom Procedure: Pregnant and breastfeeding women, BCEA	Dec-30	In progress
Office administrative work and use of office equipment	R	34	Ergonomics	Musculoskeletal disorder	Poorly designed work areas, wear and tear of furniture	1. Remove damaged furniture 2. Monitor for furniture / SHE rep inspections. 3. Repair any damaged furniture 4. Load defects for damaged equipment	Employees	Project Manager	Daily	Lost Time Injury, Irreversible health effects/occupational disease with permanent consequence	Ergonomic awareness, Risk assessment, Ergonomic surveys	4	C	II	Mostly effective	Reduce duration of activities, take regular breaks, monitor survey results	Monitor existing controls	Project Manager, Supervisors, SHE Manager/Officers, Occupational Hygienist	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Driving vehicle to and from work	R	35	Exposure to bad road conditions and adverse weather conditions	Vehicle collisions leading to fatalities and injuries	Unread worthy vehicles, adverse weather conditions	Enforcement of National Road Traffic Act, 1996.	Employees, Visitors, Contractors	Project Managers	Daily	Multiple fatalities	Vehicle inspections, and safety safety awareness	6	C	II	Mostly effective	Buddy driver system, minimise driving - Pull over in a safe place and take leg stretches. Keep hydrated	Monitor existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993, Eskom Vehicle safety specification 32-345	Dec-30	In progress
Transportation and delivery of SO3 to site	N	36	Poor weather condition	Vehicle collisions leading to fatalities and injuries	Not adhering to road safety rules. Poor maintenance of vehicles, employee error, poor lighting, no reflector vests provided to employees, no demarcated walkway for pedestrians	1. Enforcement of National Road Traffic Act, 1996. 2. Compliance to Construction Regulation 23 (2) (b)	Employees, Visitors, Public	Project Manager	On occurrence	Multiple fatalities	Complete a Pre-Trip Inspection. Reduce speed. Keep following distance. Cover equipment for protection. Check updates on roadwork	6	C	II	Mostly effective	Buddy driver system, pull over in a safe place and take leg stretches. Keep hydrated. Monitor weather conditions.	Monitor existing controls	Client and Contractor Project Manager	Occupational Health and Safety Act 85 of 1993, Eskom Vehicle safety specification 32-345	Dec-30	In progress
			Heavy traffic	Vehicle collisions resulting in fatalities and injuries	No delivery and traffic plan developed, route not planned	Develop traffic management plan.	Employees, Visitors, Public	Project Manager	On occurrence	Multiple fatalities	Identify the best routes to the site. Prepare delivery plan in advance. Take into account one-way or narrow roads, low bridges, tight corners, overhead power lines	6	C	II	Mostly effective	Buddy driver system, pull over in a safe place and take leg stretches. Keep hydrated. Plan the route	Monitor existing controls	Client and Contractor Project Manager	Occupational Health and Safety Act 85 of 1993, Eskom Vehicle safety specification 32-345	Dec-30	In progress
Loading and offloading of SO3 tanks	N	37	Falling of load.	Fatalities and injuries to employees.	No safe work procedure. No training for personnel offloading equipment. Inspection of lifting gear not done.	1. Develop a risk assessment 2. Develop a method statement 3. Conduct rigging study and must be approved by a competent person. 3. Conduct pre use inspections.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Ensure all workers involved in loading and unloading have been trained on safe practices, including traffic management if required. Establish a site plan or sketch showing parking, route to take through the site, safe loading or offloading zone. Check with the delivery location on any timing restrictions regarding loading or unloading goods or equipment. Inspect lifting equipment before use.	5	C	II	Mostly effective	Continuous monitoring of offloading activities	Monitor existing controls	Supervisor, SHE Manager/Officer, Rigging team	Driven Machinery Regulation 18	Dec-30	In progress
			Lack of inspection on rigging gear	Dropping of load leading to fatalities and injuries.	Equipment failure.	1. Conduct pre use inspections of the equipment. 2. The equipment shall be fitted with fail safe mechanism.	Employees, Contractors	Project Manager	Daily	Fatality, LTI, Medical treatment, property damage	Equipment inspections on three months basis by competent person	5	C	II	Mostly effective	Supervisors and Safety to ensure that correct tag is applied on the lifting equipment and three monthly inspection are done.	Inspections and Audits	Supervisor, Safety Officer, Project Manager	Driven Machinery Regulation(DMR) 18	Dec-30	In progress
			Use of defective lifting equipment	Loads falling onto and / or bumping employees leading to fatalities and injuries.	Lifting equipment is not inspected and maintained regularly; lack of inspection on equipment at predetermined intervals and before use, defective equipment kept with undetective equipment	1. Develop a risk assessment 2. Develop a method statement 3. Conduct rigging study and must be approved by a competent person. 4. Conduct pre use inspections by competent person.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Lifting equipment may need to be thoroughly examined at intervals laid down. Any	5	C	II	Mostly effective	Continuous monitoring of hoisting activities, review of inspection records during monthly audits; regular checks to be done by supervisor and SHE Manager	Incident trend analysis for effectiveness of controls and monitor existing controls	Supervisors, SHE Personnel, Riggers	Driven Machinery Regulation 18	Dec-30	In progress
Installation of SO3 tanks	N	38	Incorrect installation, installation not meeting all applicable safety and local electrical codes.	Malfunctioning and electrical shock leading to injuries and damage to property.	Unsafe method or practice which can result in product damage or related equipment damage.	1. Develop method statements and risk assessment. 2. Provision of direct supervision. 3. Motivate personnel to work safe	Employees, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Regular maintenance to be done.	5	C	II	Mostly effective	Continuous monitoring of maintenance programme	Monitor existing controls	Supervisors, SHE Personnel, Maintenance team	SHE Spec, Method statement, risk assessment, maintenance plan.	Dec-30	In progress
			Installations not performed by a qualified electrician, inappropriate operation, on compliance with respect to performance requirement	Injuries to employees	No proper training and knowledge for technicians	1. Appoint qualified technicians to perform the works. 2. Provision of direct supervision.	Employees, Contractors	Project Manager	Daily	Lost Time Injury, Irreversible health effects/occupational disease with permanent consequence	Technicians to be well trained on the scope of work.	4	C	II	Mostly effective	Evaluate technicians competencies before work commences.	Monitor existing controls	Supervisors, SHE Personnel, Contract Manager	SHE Spec, Method statement, risk assessment.	Dec-30	In progress
			Ergonomics	Strain on employees body	Poorly designed work areas, heavy lift, awkward position	1. Conduct an ergonomics survey 2. Develop a health risk assessment	Employees, Contractors	Project Manager	Daily	Lost Time Injury, Irreversible health effects/occupational disease with permanent consequence	Ergonomic awareness, Risk assessment, Ergonomic surveys, adhere to standards	4	C	II	Mostly effective	Reduce duration of activities, take regular breaks, monitor survey results, use proper posture when lifting.	Low or no related incidents or complaints, no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
			Exposure to chemicals	Burns leading to fatalities and injuries.	Lack of awareness, lack of risk assessment, poor storage of chemicals, lack of proper access control, misuse, incorrect labelling/signage	1. Awareness training on chemical storage and SDS of each chemical. 2. Compliance to Hazardous Chemical Substances	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Task specific risk assessments and awareness.	4	C	II	Mostly effective	Wear gas test monitoring equipment.	Low or no related incidents, no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress

			Incorrect use of hand tools, unserviceable tools, broken or modified tools, use of wrong tool for the job, hand tools not identified for inspection	Injuries to employees	Safety	No inspection of hand tools.	Conduct inspections on each tool before use	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	All hand tools must be identified and entered on a register/checked list. All hand tools must be inspected. Records of such inspections must be kept on file.	4	C	II	Mostly effective	Monitor existing control, share awareness during toolbox talks	Low or no related incidents, no failure due to existing controls	Supervisor, SHE Officer, individual	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
Plant inspection	R	39	Improper wearing of PPE	Injuries to employees	Safety	Negligence/Non compliance to wearing of PPE	Enforce the use of correct PPE.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Awareness on using PPE correctly.	4	C	II	Mostly effective	Monitoring and correcting unsafe act	Behavioural Based Observations(BBS)	Supervisor, Safety officer, Contracts Manager, Employees	General Safety Regulation 2, SHE Spec	Dec-30	In progress
Conducting radiation activities (NDT Testing).	R	40	Exposure to radio active sources from testing integrity of welds, X-rays of welded components	Injuries to employees	Safety	People working in area where x-rays are being conducted thus leading to radio active exposure, insufficient barricading, poor signage and communication	Develop and enforce the Rad active source use procedure.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Do not allow staff to work in areas where x-rays are being conducted. Toolbox talks and awareness, work according to approved NDT procedure, signage communicated on prior to x-rays.	5	C	II	Mostly effective	Monitor existing control	Make announcements on areas to be exposed to radio-activity during outage meetings. The supervisor must stop all work when there are x-rays or exposure to radio-activity. Regular medical screening for RT personnel, and immediate screening in case of exposure	Safety Dept. and line management, individual responsibility, Supervisors Radiation personnel	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
Disassembling and storage of old SO3 tank	N	41	Poor storage of old SO3 tank.	Falling objects resulting in injury to personnel	Safety	Poor house keeping and poor storage planning No maintenance of spillages.	1. Develop a housekeeping and storage standard procedure. 2. Ensure compliance to standards and procedures.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Procedures in place, plant production, cleaning of plant, BBS and NDA.	4	C	II	Mostly effective	Frequent checks around the working area and house keeping activities	Low or no related incidents, no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
			Poor housekeeping	Trip and fall resulting in injury to personnel	Safety	Poor stacking and storage, non adherence to waste management procedure, poor suspension, poor risk assessments, defective lifts.	1. Develop a housekeeping and storage standard procedure. 2. Ensure compliance to standards and procedures. 3. Restrict access to defective equipment's.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Procedures in place, plant production, cleaning of plant, BBS and NDA.	4	C	II	Mostly effective	Awareness campaigns	Low or no related incidents (including near misses), no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Skin exposure to SO3	Injuries due to burns	Health	No use or improper use of PPE	Comply with PPE procedure and communicate it to the work force	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Use of appropriate personal protective equipment is	4	C	II	Mostly effective	Awareness campaigns and toolbox talks	Monitor controls, constant supervision.	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Skin exposure to acid mist	Severe skin irritation	Health	No use or improper use of PPE	Comply with PPE procedure and communicate it to the work force	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Use of appropriate personal protective equipment is	4	C	II	Mostly effective	Awareness campaigns and toolbox talks	Monitor controls, constant supervision.	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Accidental ingestion of the liquid	Severe burns to the mucosal membranes of the mouth and esophagus.	Health	No use or improper use of PPE. Hands not washed after handling the chemical.	1. Comply with PPE procedure and communicate it to the work force. 2. Enforcement of washing of hands after an employee was in contact with a chemical.	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Use of appropriate personal protective equipment is essential to safely handle sulphur trioxide. Do not get sulphur trioxide in eyes, on skin or on clothing. Wash hands thoroughly after handling. Remove contaminated clothing or shoes immediately. Wash clothing before reuse.	5	C	II	Mostly effective	Awareness campaigns and toolbox talks	Monitor controls, constant supervision.	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Eye exposure	Corneal or conjunctival ulceration, redness or swelling, eye irritation with discomfort.	Health	No use or improper use of PPE. Hands not washed after handling the chemical.	1. Enforce the use of correct PPE. 2. Enforcement of washing of hands after an employee was in contact with a chemical.	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Use of appropriate personal protective equipment is	4	C	II	Mostly effective	Awareness campaigns and toolbox talks	Monitor controls, constant supervision.	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Overexposure to mist by inhalation	Lung irritation with cough, discomfort, difficulty in breathing, or shortness of breath	Health	No use or improper use of PPE	Enforce the use of correct PPE	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Use of appropriate personal protective equipment is essential to	4	C	II	Mostly effective	Awareness campaigns and toolbox talks	Monitor controls, constant supervision.	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Working in a limited space.	N	42	Limited access and egress.	Injuries caused by bodily cuts	Safety	Narrow openings.	Comply with PSR requirements in terms working on confined spaces before any work is done.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Access to the space must be controlled. Only authorized	4	C	II	Mostly effective	Continuous monitoring of the restricted area.	Daily inspectors	Supervisors, SHE Officers, Employees	General Safety Regulation 5	Dec-30	In progress
			Awkward or difficult movement.	Injuries to employees	Safety	Poor house keeping and poor storage planning	1. Develop a housekeeping and storage standard procedure. 2. Ensure compliance to standards and procedures.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Procedures in place, plant production, quarantine, training and awareness, BBS and NDA.	5	C	II	Mostly effective	Equipment staging plan in place, continuous supervision between contractors.	Low or no related incidents (including near misses), no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
Testing and commissioning of installed SO3 tanks	N	43	Risk associated with plant commissioning activities.	Injury to personnel	Safety	Lack of knowledge. Poor maintenance. Not following procedure error, poor communication	1. Develop a commissioning procedure and must be approved by engineering. 2. Establish a commissioning plan and team. 3. Restrict access by unauthorized personnel on the commissioning area.	Employees, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Procedure to be followed, observation, Plant permit system, Provide training	4	C	II	Mostly effective	Use of radios for communication.	Monitor existing controls	Safety Dept. and line management, Supervisors	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Exposed live cables inside the DB boards	Burns due to electrocution	Safety	Tagging of the DB board due to malfunction or overload.	Provide the COC of all electrical DB's	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	All DB boards to be COC'd before can be used on-site.	5	C	II	Mostly effective	Team leader to follow the correct process in re-setting DB boards. The team leader to ensure that DB board is not overloaded.	Regular monitoring of DB boards to ensure that loads balance.	Supervisor, Safety officer, Project Manager	Occupational Health and Safety Act 85 of 1993. SANS 10142-1	Dec-30	In progress
			Improper wearing of PPE	Injuries to employees	Safety	Negligence/Non compliance to wearing of PPE	Enforcement of PPE procedure	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Awareness and training on using PPE correctly. Risk assessment	4	C	II	Mostly effective	Monitoring and correcting unsafe act	Behavioural Based Observations(BBS)	Supervisor, Safety officer, Project Manager	General Safety Regulation 2	Dec-30	In progress
			Exposure to foreign objects	Injuries to employees	Safety	Negligence/Non compliance to wearing of PPE	Enforcement of PPE procedure	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Awareness and training on using PPE correctly. Risk assessment	4	C	II	Mostly effective	Monitoring and correcting unsafe act	Behavioural Based Observations(BBS)	Supervisor, Safety officer, Project Manager	General Safety Regulation 2	Dec-30	In progress
			Exposure to SO3 mist and fumes	Injuries to employees	Safety	Negligence/Non compliance to wearing of PPE	Enforcement of PPE procedure	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Awareness and training on using PPE correctly. Risk assessment	4	C	II	Mostly effective	Monitoring and correcting unsafe act	Behavioural Based Observations(BBS)	Supervisor, Safety officer, Project Manager	General Safety Regulation 2	Dec-30	In progress
Painting and waterproofing (walkways, walking surfaces and handrails)	N	44	Exposure to a fall due to working from ladders, platforms and scaffolds.	Injuries to employees	Safety	No fall protection plan. No use of fall arrest equipment. Platforms and scaffolds not safety built.	1. Train employees on working heights. 2. Develop a fall protection plan. 3. Develop a working at heights risk assessment. 4. Develop a rescuer plan.	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Risk Assessment, training, awareness, fall protection, ladder safety, PPE.	5	C	II	Mostly effective	Monitoring control measures	Continuous supervision	SHE Officer, Supervisors, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Spills, trips and falls.	Injuries to employees	Safety	Spillages not cleaned. Poor stacking of material used. Slippery working platforms	1. Training and awareness. 2. Develop method statement and Risk assessment. 3. Work stoppage. 4. Reinspection of the working platforms.	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Risk Assessment, training, awareness, fall protection, use of PPE.	4	C	II	Mostly effective	Monitoring control measures	Continuous supervision	SHE Officer, Supervisors, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Falling objects.	Injuries to employees	Safety	Material not secured at height. Working platform not secured. No toe boards to prevent material from falling	1. Enforcement of CR 16 and SANS 10085. 2. Training and awareness. 3. Develop method statement and Risk assessment. 4. Work stoppage. 5. Reinspection of the scaffold.	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Risk Assessment, training, awareness, fall protection, use of PPE.	5	C	II	Mostly effective	Monitoring control measures	Continuous supervision	SHE Officer, Supervisors, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Exposure to paint products, solvents, lead, and other toxic chemicals	Neuropathy and cardiovascular injury. Lung cancer, leukemia, lymphoma, multiple myeloma, and others cancers.	Health	No use or improper use of PPE	Enforcement of PPE procedure	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Risk Assessment, training, awareness, use of PPE	5	C	II	Mostly effective	Monitoring control measures	Continuous supervision	SHE Officer, Supervisors, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
			Inhalation of fumes	Headaches, dizziness and nausea	Health	No use or improper use of PPE	Enforcement of PPE procedure	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Risk Assessment, training, awareness, use of PPE	4	C	II	Mostly effective	Monitoring control measures	Continuous supervision	SHE Officer, Supervisors, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Working in adverse weather conditions	N	45	Exposure to extreme hot temperatures	Heat stroke	Safety	Heat wave, dehydration.	1. Conduct an Occupational Hygien survey. 2. Develop Health risk assessment.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Need to drink 600ml of water every hour. Medical treatment.	5	C	II	Mostly effective	Regular awareness on temperature, resting period for every 4 hours, a prompt first aid treatment in an event of heatstroke.	Behavioural Based Observations(BBS), Toolbox talk	Supervisor, Safety officer, Project Manager	Environmental regulations for work places (ERWZ)	Dec-30	In progress
			Heat cramps	Heat cramps	Safety	Heat wave, dehydration.	1. Conduct an Occupational Hygien survey. 2. Develop Health risk assessment.	Employees, Visitors, Contractors	Project Manager	Daily	Medical treatment case, occupational disease with reversible/non permanent effect	Need to drink 600ml of water every hour. Medical treatment.	3	C	II	Mostly effective	Regular awareness on temperature, resting period for every 4 hours, a prompt first aid treatment in an event of heatstroke.	Behavioural Based Observations(BBS), Toolbox talk	Supervisor, Safety officer, Project Manager	Environmental regulations for work places (ERWZ)	Dec-30	In progress
			Heat rash	Heat rash	Safety	Heat wave, dehydration.	1. Conduct an Occupational Hygien survey. 2. Develop Health risk assessment.	Employees, Visitors, Contractors	Project Manager	Daily	Medical treatment case, occupational disease with reversible/non permanent effect	Need to drink 600ml of water every hour. Medical treatment.	3	C	II	Mostly effective	Regular awareness on temperature, resting period for every 4 hours, a prompt first aid treatment in an event of heatstroke.	Behavioural Based Observations(BBS), Toolbox talk	Supervisor, Safety officer, Project Manager	Environmental regulations for work places (ERWZ)	Dec-30	In progress
			Heat exhaustion	Heat exhaustion	Safety	Heat wave, dehydration.	1. Conduct an Occupational Hygien survey. 2. Develop Health risk assessment.	Employees, Visitors, Contractors	Project Manager	Daily	Medical treatment case, occupational disease with reversible/non permanent effect	Need to drink 600ml of water every hour. Medical treatment.	3	C	II	Mostly effective	Regular awareness on temperature, resting period for every 4 hours, a prompt first aid treatment in an event of heatstroke.	Behavioural Based Observations(BBS), Toolbox talk	Supervisor, Safety officer, Project Manager	Environmental regulations for work places (ERWZ)	Dec-30	In progress

			Cold stress		Hypothermia	Safety	Exposure to cold temperatures especially at night time.	1. Conduct an Occupational Hygiene survey. 2. Develop Health risk Assessment.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Risk assessments, cold stress survey, warm fluids, awareness, PPE, worker education, Fall arrest.	4	C	II	Mostly effective	Pre-work area survey, plan work accordingly	Low or no related incidents, no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
Transportation and delivery of rotors to site	R	46	Poor weather condition	46.1	Ability to see routes properly, leading to vehicles bumping employees	Safety	Not adhering to road safety rules. Poor maintenance of vehicles, employee error, poor lighting, no reflector vests provided to employees, no demarcated walkway for pedestrians	1. Enforcement of National Road Traffic Act, 1996. 2. Compliance to Construction Regulation 23 (2) (A).	Employees, Visitors, Public	Project Manager	On occurrence	Multiple fatalities	Complete a Pre-Trip Inspection. Re-pace speed. Keep following distance. Cover equipment for protection. Check updates on weather.	6	C	II	Mostly effective	Buddy driver system, pull over in a safe place and take leg stretches. Keep hydrated. Monitor weather conditions.	Monitor existing controls	Client and Contractor Project Manager	Occupational Health and Safety Act 85 of 1993, Eskom Vehicle safety specification 32-345	Dec-30	In progress
	R		Heavy traffic	46.2	Vehicle collisions	Safety	No delivery and traffic plan developed, route not planned	Develop traffic management plan.	Employees, Visitors, Public	Project Manager	On occurrence	Multiple fatalities	Identify the best routes to the site. Prepare delivery plan in advance. Take into account one-way or narrow roads, low bridges, tight curves, overhead power lines.	6	C	II	Mostly effective	Buddy driver system, pull over in a safe place and take leg stretches. Keep hydrated. Plan the route.	Monitor existing controls	Client and Contractor Project Manager	Occupational Health and Safety Act 85 of 1993, Eskom Vehicle safety specification 32-345	Dec-30	In progress
Loading and offloading of rotors	R	47	Falling of load.	47.1	Damage to property, injuries	Safety	No safe work procedure. No training for personnel offloading equipment. Inspection of lifting gear not done.	1. Develop a risk assessment 2. Develop a method statement 3. Conduct rigging study and must be approved by a competent person. 3. Conduct pre-use inspections.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Ensure all workers involved in loading and unloading have been trained on safe practices, including traffic management if required. Sketch a site plan or sketch showing parking route to take through the site, safe loading or offloading zone. Check with the delivery location on any timing restrictions regarding loading or offloading goods or equipment. Inspect lifting equipment before use.	5	C	II	Mostly effective	Continuous monitoring of offloading activities	Monitor existing controls	Supervisor, SHE Manager/ Officer, Rigging team	Driven Machinery Regulation 18	Dec-30	In progress
	R		Lack of inspection on rigging gear	47.2	Dropping of load	Safety	Equipment failure.	1. Conduct pre-use inspections of the equipment. 2. The equipment shall be fitted with fail safe mechanism.	Employees, Contractors	Project Manager	Daily	Fatality, LTI, Medical treatment, property damage	Equipment inspections on three months basis by competent person.	5	C	II	Mostly effective	Supervisors and Safety to ensure that correct tag is applied on the lifting equipment and three monthly inspection are done.	Inspections and Audits	Supervisor, Safety Officer, Project Manager	Driven Machinery Regulation (DMR) 18	Dec-30	In progress
	R		Use of defective lifting equipment	47.3	Loads falling onto and / or bumping employees	Safety	Lifting equipment is not inspected and maintained regularly, lack of inspection on equipment at predetermined intervals and before use, defective equipment kept with undetective equipment	1. Develop a risk assessment 2. Develop a method statement 3. Conduct rigging study and must be approved by a competent person. 4. Conduct pre-use inspections by competent person.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Lifting equipment may need to be thoroughly examined at intervals laid down. Any defect noticed on lifting equipment should be immediately reported. All examinations must be undertaken by a competent person. Develop rigging plan; Characterize equipment that are defective, daily inspection of equipment before use; inspection of equipment by competent person at predetermined intervals	5	C	II	Mostly effective	Continuous monitoring of hoisting activities, review of inspection records during monthly audits, equal checks to be done by supervisor and SHE Manager	Incident trend analysis for effectiveness of controls and monitor existing controls	Supervisors, SHE Personnel, Riggers	Driven Machinery Regulation 18	Dec-30	In progress
Installation of rotors	R	48	Incorrect installation, installation not meeting all applicable safety and local electrical codes.	48.1	Multifunctioning of the rotor and electrical shock leading to injuries and damage to property.	Safety	Unsafe method or practice which can result in product damage or related equipment damage.	1. Develop method statements and risk assessment. 2. Provision of direct supervision. 3. Minimize personnel to work safe	Employees, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Regular maintenance to be done.	5	C	II	Mostly effective	Continuous monitoring of maintenance programme	Monitor existing controls	Supervisors, SHE Personnel, Maintenance team	SHE Spec, Method statement, risk assessment, maintenance plan.	Dec-30	In progress
	R		Installations not performed by a qualified electrician, inappropriate operation, non-compliance with respect to performance requirement	48.2	Injuries	Safety	No proper training and knowledge for technicians	1. Appoint qualified technicians to perform the works. 2. Provision of direct supervision.	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Technicians to be well trained on the scope of work.	4	C	II	Mostly effective	Evaluate technicians competencies before work commences.	Monitor existing controls	Supervisors, SHE Personnel, Contract Manager	SHE Spec, Method statement, risk assessment	Dec-30	In progress
	R		Ergonomics	48.3	Strain on employees body, musculoskeletal disorder	Safety	Poorly designed work areas, heavy lifts, awkward position	1. Conduct an ergonomics survey 2. Develop a health risk assessment	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Ergonomic awareness, risk assessment, Ergonomic surveys, adhere to procedure.	4	C	II	Mostly effective	Reduce duration of activities, take regular breaks, monitor survey results, use proper posture when lifting.	Low or no related incidents or complaints, no failure due to existing controls.	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993 .	Dec-30	In progress
	R		Exposure to chemicals (H2 gas and CO2)	48.4	Irritation, inhalation	Safety	Lack of awareness, lack of risk assessment, poor storage of chemicals, lack of proper access control, misuse, incorrect labelling/ signage	1. Awareness training on the H2 and CO2 gases. 2. Compliance to Hazardous Chemical Substances Regulation 14 (a) to (e) . 3. Develop a risk assessment.	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Task specific risk assessments, PPE and awareness, MSDS compliance, adherence to storage procedure, monitoring and gas testing.	5	C	II	Mostly effective	Wear gas test monitoring equipment.	Low or no related incidents, no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993 .	Dec-30	In progress
Testing and commissioning of the rotors	R	49	Risk associated with plant commissioning activities.	49.1	Injury to personnel and damage to the system	Safety	Lack of knowledge /Poor maintenance /Not following procedure /error, poor communication	1. Develop a commissioning procedure and must be approved by engineering. 2. Establish a commission plan and team. 3. Restrict access by unauthorized personnel on the commissioning area.	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Procedure to be observed. Plant permit system. Provide training	4	C	II	Mostly effective	Use of radios for communication.	Monitor existing controls	Safety Dept. and line management, Supervisors	Occupational Health and Safety Act 85 of 1993 .	Dec-30	In progress
Plant inspection	R	50	Improper wearing of PPE	50.1	Exposure to noise, dust, foreign objects	Safety	Negligence/Non compliance to wearing of PPE	Enforce the use of correct PPE.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Awareness on using PPE	4	C	II	Mostly effective	Monitoring and correcting unsafe act	Behavioural Based Observations (BBO)	Supervisor, Safety Officer/Contract Manager, Employees	General Safety Regulation 2, SHE Spec.	Dec-30	In progress
Conducting radiation activities (NBT Testing)	R	51	Radio active sources, Testing integrity of welds, X-rays of welded components	51.1	Exposed to radio active sources	Safety	People working in areas where x-rays are being conducted thus leading to radio active exposure, insufficient barricading, poor signage and communication	Develop and enforce the Radi active source use procedure.	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Do not allow staff to work in areas where x-rays are being conducted. Toolbox talks and awareness, work according to approved NBT procedure, signage communication in prior to entry. Restriction	5	C	II	Mostly effective	Make announcements on areas to be exposed to radio activity during outage meetings. The supervisor must stop all work when there are in-rays or exposure to radio activity. Regular medical screening for RT personnel, and immediate screening in case of exposure	Monitor existing control	Safety Dept. and line management, individual responsibility, Supervisors, Radiation personnel	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
Disassembling and storage of old rotors	R	52	Poor storage of old rotors	52.1	Trip and fall, falling objects, injury to personnel	Safety	Poor house keeping and poor storage planning	1. Develop a housekeeping and storage standard procedure. 2. Ensure compliance to standards and procedures.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Route inspections, Supervisors, quarantine, training and awareness.	4	C	II	Mostly effective	Frequent checks around the working area and house keeping activities	Low or no related incidents, no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993 .	Dec-30	In progress

	R		Poor housekeeping	52.2	Trip and fall, falling objects, injury to personnel	Safety	Poor stacking and storage, non adherence to waste management procedure, poor supervision, poor risk assessments, defective lifts.	1. Develop a housekeeping and storage standard procedure. 2. Ensure compliance to standards and procedures. 3. Restrict access to defective equipment. 4. Coaching of supervisors.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Procedures in place, plant reduction of risk of start, BBS and VLS, inspections, supervision, risk assessments, maintenance of the lifts, proper planning and communication	4	C	II	Mostly effective	Awareness campaigns	Low or no related incidents (including near misses), no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
Working in a limited space.	R	53	Limited access and egress.	53.1	Injuries, bodily cuts	Safety	Narrow openings.	Comply with PSR requirements in terms working on confined spaces before any work is done.	Employees, Visitors, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Access to the space must be controlled. Only authorized individuals who will work inside to be allowed entry, emergency procedures to be followed. Appropriate protective equipment must be provided and used. Reliable means of communication must be available. Use of respirators.	4	C	II	Mostly effective	Continuous monitoring of the restricted area.	Daily inspections	Supervisors, SHE Officers, Employees	General Safety Regulation 5	Dec-30	In progress
	R		Ackward or difficult movement.	53.2	Potential safety incidents, damage to plant, trip and fall, falling objects	Safety	Poor house keeping and poor storage planning	1. Develop a housekeeping and storage standard procedure. 2. Ensure compliance to standards and procedures.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Routine inspections, Supervisors, quarantine, training and awareness, BBS and VLS.	5	C	II	Mostly effective	Equipment staging plan in place, continuous supervision between contractors.	Low or no related incidents (including near misses), no failure due to existing controls	Safety Dept. and line management, individual responsibility	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
Testing and commissioning of installed rotors	R	54	Risk associated with Plant Commissioning activities.	54.1	Injury to personnel and damage to the system	Safety	Lack of knowledge Poor maintenance Not following procedure Human error, poor communication	1. Develop a commissioning procedure and must be approved by engineering. 2. Establish a commissioning plan and team. 3. Restrict access by unauthorized personnel on the commissioning area.	Employees, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Procedure in place, observation, Plant permit system, Provide training	4	C	II	Mostly effective	Use of radios for communication.	Monitor existing controls	Safety Dept. and line management, Supervisors	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
	R		Exposed live cables inside the DB boards	54.2	Possible electrocution	Safety	Tapping of the DB board due to malfunction or overload.	Prevent the COC of all electrical DB's	Employees, Contractors	Project Manager	Daily	Fatality or life threatening health effects	All DB boards to be COC'd before work can be used on site.	5	C	II	Mostly effective	Team leader to follow the correct process in re-setting DB boards. The team leader to ensure that DB board is not overloaded.	Regular monitoring of DB boards to ensure that loads balance.	Supervisor, Safety officer, Project Manager	Occupational Health and Safety Act 85 of 1993. SANS 10142-1	Dec-30	In progress
	R		Improper wearing of PPE	54.3	Exposure to Noise, Dust, Foreign objects	Health	Negligence/Non compliance to wearing of PPE	Comply with PPE procedure	Employees, Contractors	Project Manager	Daily	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence, hearing loss, lung disease.	Awareness on using PPE correctly.	4	C	II	Mostly effective	Monitoring and correcting unsafe act	Behavioural Based Observations(BBO)	Supervisor, Safety officer, Project Manager	General Safety Regulation 2	Dec-30	In progress
Removal and disposal of asbestos insulating material on some rotors.	R	55	Exposure to asbestos fibres	55.1		Safety	Poor maintenance, damage to asbestos containing material, stripping lagging	Conduct an inspection to determine the presence of asbestos.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Risk Assessment, Training, Awareness, Approved asbestos removal services, PPE, continuous monitoring (detect system), Use of stripping procedure, asbestos stripping will be done prior giving access to contractors.	5	C	II	Mostly effective	Investigations and awareness, Annual medical screening, Respirators, Work stoppage. Where asbestos is removed replace with mineral wool, Vacuum cleaning, Issue Asbestos Inventory List	Reported cases of exposure due to asbestos stripping plan and low or no related incidents, no failure due to existing controls	Safety Dept. and line management, individual responsibility, supervisors	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
Replacement of H2 Cooler	R	56	Gas leakage, hydrogen inhalation	56.1	Nausea, headaches, tremors, convulsions, and skin and eye irritation.	Health	Wear and tear of the container, human failure, pipe rupture caused by pressure explosion due to valve failure	Develop method and risk assessment and must be approved by engineering.	Employees, Visitors, Contractors	Project Manager	Daily	Fatality or life threatening health effects	Install gas detection which activates emergency ventilation, use of explosion relief of container	5	C	II	Mostly effective	Periodic cleaning of the inside of each tube is required. Tubes must also be inspected to ensure they are sound and not leaking cooling water.	Monitor control measures	Supervisors	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Presence areas and of bees, wasps and snakes in the vicinity of office areas and work areas	R	57	Bees/ Wasps/Snakes	57.1	Bees/wasp stings/ Venomous snake bites	Safety	Agitating the bees/wasps in their hives. Disturbing the snake habitats	1. Conduct an inspection	Employees, Visitors, Public	Project Manager	Daily	Medical treatment case, occupational disease with reversible/non-permanent effect	Awareness and training on snakes and bees. Maintenance of grass/courtyard and good housekeeping. Persons who have allergic reaction to bee stings to inform the site manager.	3	C	II	Mostly effective	Wear long pants and boots when in near hives to have snakes. Shaving of bee sting/ snake bite incidents with staff, contractors and visitors. Inspect areas where bees/wasps are known to nest. Pest control to move/evacuate any identified bee hives. Fungicide resting areas.	Monitor existing controls	Project Manager, Supervisor, SHE Manager/Officers	OHSA, Eskom Procedures	Dec-30	In progress
Removal and replacement of discharge electrodes (DEs) and collecting electrodes (CEs)	R	40	Topping over of DEs and CEs on employee at ground level	40.1	Injuries to employees	Safety	Working under suspended load, employee getting bruises or even becoming unconscious	Employees, Visitors, Contractors	Project Manager	Daily	Medical treatment case, occupational disease with reversible/non-permanent effect	Method statements, rigging studies, and	4	C	II	Mostly effective	Ensure direct supervision of the activity.	Monitor existing controls	Client and Contractor Project Manager	Occupational Health and Safety Act 85 of 1993. Method statements and risk assessments	Dec-30	In progress	
Removal and replacement of collecting electrodes (CEs) and discharge electrodes (DEs)	R	41	Falling CE's and DE's	41.1	Fatalities	Safety	DEs and CE's bumping employees while being rigged to and from the penthouse lack of training, no proper risk assessment, lack of supervision, no safe work procedure, no solid barricading in place, employees walking under suspended loads, employees remaining in the rigging vicinity, no whistle blower to alert employees and to keep clear of suspended and moving loads	Employees, Visitors, Contractors	Project Manager	Daily	Fatalities. Life threatening injuries: Medical treatment case	Ensure all workers involved in the removal and replacement of plates have been trained on safe work practices. Pre inspect the work area before the commencement of the job.	5	C	II	Mostly effective	Continuous monitoring of the removal and replacement of ESP elements.	Monitor existing controls	Supervisor, SHE Manager/ Officer, Rigging team	Occupational Health and Safety Act 85 of 1993. Method statements and risk assessments	Dec-30	In progress	
	R	41	Ces and DEs	41.2	Injuries to employees	Safety	Manual handling of CE's, lack of training; No proper risk assessment; No safe work procedure; inadequate PPE	Employees, Visitors, Contractors	Project Manager	Daily	Medical treatment case; occupational disease with reversible/non-permanent effect	Training, Method statements and DSTs, provision of proper hand protection for all employees involved in the activity.	3	C	II	Mostly effective	Continuous awareness on risks associated with activity, proper PPE selection, supervision	Monitor existing controls	Supervisor, SHE Manager/ Officer, Rigging team	Occupational Health and Safety Act 85 of 1993. GCO SHE Specification, Contractor Method Statements	Dec-30	In progress	
Removal and replacement of Inlet and Outlet Screens	R	42	Restricted spaces	42.1	Injuries to employees (Bruises, cuts, bodily injuries)	Safety	Design of the plant that causes employees to work on very small space where movement is restricted	Employees, Visitors, Contractors	Project Manager	On occurrence	Medical treatment case; occupational disease with reversible/non-permanent effect	DST, Training and awareness of risks associated with activity, limiting number of employees working in the area, proper PPE to be provided	3	C	II	Mostly effective	Supervision, continuous communication with employees on risks associated with activity	Monitor existing controls	Supervisors, SHE Personnel, Roggers	OHSA 85 of 1993, GCO SHE Specification, Contractor Method Statements	Dec-30	In progress	
Removal and replacement of Inlet and Outlet Screens	R	43	Elevated positions	43.1	Fall from heights leading to fatalities	Safety	Inadequate space/room to move safely and manoeuvre, scaffolding not erected properly or unstable, limited working platform	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Finesse certificates for all employees working at heights. Work at heights training and competency, rescue team fall arrest systems, fall prevention methods to be used, fall protection and prevention plan.	5	C	II	Mostly effective	Direct supervision	Monitor existing controls	Supervisors, SHE Personnel, Maintenance team	SHE Specification, Method Statement, Risk Assessment, Maintenance Plan.	Dec-30	In progress	
Commissioning of the system	R	44	Plant Commissioning activities.	44.1	Injuries to employees	Safety	Lack of knowledge of the plant, employees not following procedures, human error, poor communication	Employees, Visitors, Contractors	Project Manager	On occurrence	Lost Time Injury. Irreversible health effects/occupational disease with permanent consequence	Procedure in place, observation, Plant permit system, competent and authorized personnel to be involved in commissioning (3. two-way radios for communication	4	C	II	Mostly effective	Use of radios for communication	Monitor existing controls	Safety Dept. and line management, Supervisors	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress	

Plant inspection	R	45	PPE (Defective or worn out or unavailability of it)	45.1	Injuries to employees (Eye injuries, hand injuries, etc.)	Safety	Not wearing or using PPE correctly, to wearing of PPE at all, PPE not available	Employees, Visitors, Contractors	Project Manager	Daily	Last Time Injury: Irreversible health effects/occupational disease with permanent consequence	Awareness on using PPE correctly, choosing the correct PPE for the job, DSEI	4	C	II	Mostly effective	Monitoring and correcting unsafe act	Behavioural Based Observations(BBO)	Supervisor, Safety officer, Contracts Manager, Employees	Occupational Health and Safety Act 85 of 1993 and applicable Regulation (General Safety Regulation 2); SHE Specification	Dec-30	In progress
	R	45		45.2	Noise induced hearing loss (temporal or permanent), Tinnitus	Health	Not wearing or using PPE correctly, to wearing of PPE at all, PPE not available	Employees, Visitors, Contractors	Project Manager	Daily	Last Time Injury: Irreversible health effects/occupational disease with permanent consequence	Awareness on using PPE correctly, choosing the correct PPE for the job, DSEI	4	C	II	Mostly effective	Monitoring and correcting unsafe act	Behavioural Based Observations(BBO)	Supervisor, Safety officer, Contracts Manager, Employees	Occupational Health and Safety Act 85 of 1993 and applicable Regulation (General Safety Regulation 2); SHE Specification	Dec-30	In progress
Conducting radiation activities	R	46	Radio active sources	46.1	Occupational disease to employees	Health	Exposure to large amounts of radio active sources during testing integrity of welds, arrays of welded components, leading to the identified health risks: People working in area where x-rays are being conducted where barricading is not done at correct distance from radioactive sources, poor signage and poor or no communication informing people of radioactive activity is taking place, exposure to large amounts of radio active sources leading to nausea, vomiting, hair loss, diarrhoea, haemorrhage, destruction of the essential living, central nervous system damage, and death	Employees, Visitors, Contractors	Project Manager	On occurrence	Fatality or life threatening health effects	Communication on on radio active activity taking place, signage, barricading at correct distance from radioactive source, awareness via toolbox talks of risks of radioactive material health effects, work according to approved NDT procedures	4	C	II	Mostly effective	Make announcements on areas to be exposed to radio-activity during outage meetings. The supervisor must stop all work when there are x-rays of exposure to radio-activity. Regular medical screening for RT personnel, and immediate screening in case of exposure	Monitor existing control	Safety Dept. and line management, individual responsibility, Supervisors, Radiation personnel	Occupational Health and Safety Act 85 of 1993.	Dec-30	In progress
Removal and Replacement of Rapping System (DEs and CE)	R	47	DEs and CEs	47.1	Injuries to employees (hand and finger injuries)	Safety	Manual handling of the DE and CE, employees exposed to pinch points, no proper gloves provided, no risk assessment done, no safe working procedure	Employees, Contractors	Project Manager	On occurrence	Medical treatment case: occupational disease with reversible/non-permanent effect	Use of proper PPE, Risk assessment and method statement	3	C	II	Mostly effective	Continuous awareness	Daily inspections	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Working in restricted / confined spaces	R	48	Tunnels / working space/ working area	48.1	Injuries to employees (bodily injuries, e.g bruises, cuts, etc.)	Safety	Narrow openings, limited working space	Employees, Visitors, Contractors	Project Manager	Daily	Medical treatment case: occupational disease with reversible/non-permanent effect	DSEI to identify risks and mitigating measures. Only authorized individuals who will work in accordance with entry, work and emergency procedures to be allowed in. Appropriate protective equipment must be provided and used. Reliable means of communication on must be available. Use of respirator, Permit/authorisation required to work in restricted areas.	3	C	II	Mostly effective	Continuous monitoring of the restricted area	Daily inspections	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993 and applicable Regulation (General Safety Regulation 5)	Dec-30	In progress
Painting and waterproofing	R	49	Paint fumes (inhalation)	49.1	Occupation diseases to employees (Occupational acute bronchitis, chest irritation, etc.)	Health	Inhalation of paint fumes without proper respirators causing lung irritation, working extended periods being exposed to paint fumes, use of contaminated respirator, no rotation of employees to limit exposure	Employees, Visitors, Contractors	Project Manager	On occurrence	Medical treatment case: occupational disease with reversible/non-permanent effect	Maintaining adequate ventilation; Using safety/protective gear; Housekeeping and maintaining personal hygiene; Smoking to be prohibited in the vicinity of the work, PPE including respirators	3	C	II	Mostly effective	Monitoring painting and waterproofing activity. Familiarise the employees with the contents of the SDS.	Monitor existing controls, Daily inspections, Continuous awareness	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
	R		Use of paint	49.2	Occupation diseases to employees (Dermatitis)	Health	Paint coming into contact with skin while painting doors and roof without gloves or overalls, wearing gloves not protecting and suitable for the job	Employees, Visitors, Contractors	Project Manager	On occurrence	Medical treatment case: occupational disease with reversible/non-permanent effect	DSEI, Using safety/protective gear; Housekeeping and maintaining personal hygiene	3	C	II	Mostly effective	Monitoring painting activity. Familiarise the employees with the contents of the SDS.	Monitor existing controls, Daily inspections, Continuous awareness	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Lagging and cladding	R	50	Lagging fibres	50.1	Occupation diseases to employees (Skin irritations / dermatitis)	Health	Removal of the old lagging material, replacement of cladding where lagging comes into contact with skin, not wearing the suitable PPE, using old and worn-out PPE, using contaminated PPE	Employees, Contractors	Project Manager	Daily	Medical treatment case: occupational disease with reversible/non-permanent effect	Safe work procedures; use of disposable overalls; DSEI	4	C	II	Mostly effective	Continuous awareness, use of disposable overalls and appropriate hand protection. Adequate method statement that addresses the task.	Monitor existing controls	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Using of lifts/elevators on site	R	51	Elevators/lifts	51.1	Fatalities or injuries	Safety	Faulty lifts, employees getting injured or dying due to the accidentally falling body to the ground, lack of maintenance	Employees, Visitors	Project Manager	Daily	Fatality or life threatening health effects	Maintenance schedule from Gx; Lifts get isolated when found to be faulty so that no one uses them	5	C	II	Mostly effective	Monitor existing control	Constant monitoring and reporting of faults on occurrence	Project Manager	Occupational Health and Safety Act 85 of 1993, Eskom Gx Procedures	Dec-30	In progress
Replacing casing door seals and access doors	R	52	Poor working body postures	52.1	Ergonomics	Health	Human behaviour: Lack of knowledge: Awkward positioning of the work area	Employees, Visitors, Contractors	Project Manager	Daily	Last Time Injury: Irreversible health effects/occupational disease with permanent consequence	Health awareness sessions on the effects of poor working postures, ergonomics survey where results and recommendations are shared with employees	4	E	II	Mostly effective	Continuous awareness	Medical surveillance results	Project Manager, SHE Department, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
	R	53	Casing door seals	53.1	Injuries to employees (pinch points)	Safety	Employee not paying attention when replacing the casing door seal, distractions in the surroundings, not using the proper work procedures or tools, risk assessment not done	Employees; Contractors	Project Manager	Daily	Last Time Injury: Irreversible health effects/occupational disease with permanent consequence	Identify potential pinch points before starting work (DSEI); Safe work procedures. Always be alert and know position at all times.	4	E	II	Mostly effective	Keep fingers out of "line of fire", ensure gloves are worn (of the correct type). Keep floors clean and free of debris to help prevent trips and falls	Daily inspections	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Removal of and re-installing HFTs on the parthouses	R	54	Suspended HFTs	54.1	Injuries to employees	Safety	Load falling on employees working/walking under suspended loads, Lack of training/awareness, Ignoring safety requirements, inadequate risk assessment, No supervision of the work	Employees; Visitors; Contractors	Project Manager	On occurrence	Fatalities or life threatening injuries	Competent riggers, work area to be properly barricaded, use non-defective lifting equipment, warning signs to be placed where rigging is to be done, adequate risk assessment and proper supervision, whistles to be blown during lifting operation	5	C	II	Mostly effective	Training to be task specific: Watchers to be placed in strategic areas to ensure that no undersignated persons enter the work area. Drop zones to be designated.	Incident statistics; Audit; Planned task/job observations;	Line Manager, Supervisors, SHE Department	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Washing and removal of rubble under ESPs	R	55	Slippery surfaces	55.1	Injuries to employees	Safety	Injuries due to wet/slippery surfaces, slip and fall	Employees; Visitors; Contractors	Project Manager	On occurrence	Last Time Injury: Irreversible health effects/occupational disease with permanent consequence	Adequate risk assessment for the task; Correct PPE to be worn;	4	C	II	Mostly effective	Safe work procedure for the task	Incident statistics; Audit; Planned task/job observations; daily risk assessment	Line Manager, Supervisors, SHE Department	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress
Replacing of hoppers and hopper doors	R	56	Hopper doors	56.1	Injuries to employees (hand and finger injuries)	Safety	Not paying attention to the location of hands; Not using the proper work procedures or tools, no risk assessment, using the incorrect tools for removing and replacing hopper doors	Employees; Contractors	Project Manager	On occurrence	Last Time Injury: Irreversible health effects/occupational disease with permanent consequence	Identify potential pinch points before starting work;	4	C	II	Mostly effective	Keep fingers out of "line of fire", ensure gloves are worn (of the correct type). Keep floors clean and free of debris to help prevent trips and falls	Daily inspections	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 85 of 1993	Dec-30	In progress

Removal of asbestos / asbestos containing material on ESPs	R	57	Asbestos	57.1	Occupational diseases to employees, i.e. asbestosis (chronic), coughs and catarrh (i.e. build-up of mucus in the nose or throat, associated with inflammation of the mucous membrane) from inhaled asbestos fibres (acute)	Health	Not adhering to safety measures put in place (e.g. wearing of PPE) to prevent inhalation of asbestos fibres	Employees, Contractors	Project Manager	On occurrence	Last Time Injury: Irreversible health effects/occupational disease with permanent consequence	Eskom procedures and work plans on how to work with asbestos containing material. Asbestos competent and accredited contractors handling work associated with asbestos	4	C	II	Mostly effective	Direct supervision for the work	BBS observations made, incident statistics; Air monitoring results; Asbestos inventory of areas still containing asbestos or asbestos has been removed	Project Manager, SHE Manager/Officer, Hygienist	Occupational Health and Safety Act 95 of 1993, Eskom Procedures	Dec-30	In progress
Working in switch gear rooms	R	58	Switch gear panels	58.1	Electrical shock	Safety	Live electrical equipment not isolated	Employees, Visitors, Contractors	Project Manager	Daily	Medical treatment case; occupational disease with irreversible/permanent effect Electrical contact, Fatality	DSTI to identify risks and mitigating measures. Only authorized individuals who will work in accordance with entry, work and emergency procedures to be allowed in. Appropriate protective equipment must be provided and used. Reliable means of communication must be available. Act 58 training, test before touch. Permit/authorisation required to work in restricted areas	3	C	II	Mostly effective	Continuous monitoring of the restricted area. Access to be controlled	Daily inspections	Supervisors, SHE Officers, Employees	Occupational Health and Safety Act 95 of 1993 and applicable Regulation (General Safety Regulation 5), PSR	Dec-30	In progress