						Occupational Hea	lth and Safety Baselin	e risk assessment ter	mplate															
Project/Dept:	Asset Management Projec	t Execution: Apollo Substatio	on						Scope of Risk Assessment	Removal and replacement of existing Surge Capacitor units		R	Next leview Date:		I	Unique identifier	240-70044602							
1	9-Apr-21						Prepared By:	Peter Tomlinson Signed: Date: 19-04-202	Authorised By:	Roshni Mewalus Signed: Date: 19 April 2021	y				Ī	Revision: Revision date:	0							
1: List activity	2: Hazard identification				Refer to 3: Risk identification	Occupational Health and	Safety Risk assessment pr	ocedure 32-520	4- Acc	ess & Analyse Risks				4: Evaluate	e Risk						5: Reduce &	Fliminate R	iek	
List activity (When applicable)	Hazard Hazard Identification	Risk Associated risk Nr (Risk identification)	Risk type	e Exposed group/employees	Exposure patterns	Cause(s) of the risk	Risk Owner	Conditions(Routine/Non- routine)	What are the Consequences?	Existing Controls	First determine Consequence and then the Likelihood of that Consequence.	y Rating	Adc s	iditional Controls or Tasks Aimed til	First determine Consequence and then the Likelihood of that Consequence.	y Rating	Monitoring Mechanisms	Control Owner	Legal and Other Requirements	Initial Target Date		Current Status	Independent Verification Le. Confirmation that the objectives have been met)	Comments
List specific activities to be performed taking into consideration the equipment to be used, the personnel involved in the task.	A hazard is anything that is likely to lead to an event that will have an adverse impact on achieving an objective. A hazard can pose more than one risk.	A physical event occurs or could occur in relation to the hazard	Safety or health	Who is exposed to the hazard i.e. Employees, visitors, members of the public, etc.	The frequency and duration the person/group is exposed to the hazard e.g. Daily for 3 hrs.	What causes the risk to come into effect?	Who is accountable for making sure the controls and monitors are: - in place, - implemented, - regularly reviewed for effectiveness.	Indicate Yes or No.Yes if routine and No if non-routine These short-term changes to conditions that could not be reasonably anticipated e.g. Emergencies	What is the expected adverse impact on the objective?	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)	Consequence	₽ Ris	RCE hazz k Control ctiveness - Re (con	lude:  eventative Controls reventative Controls reventative to eliminate rands or reduce the likelihood of the roccurring), and eactive Controls rtrols implemented to reduce the neclate impact of the risk occurring)	Consequence	Risk Priorit	How we know it we are succeeding. Include comments on effectiveness. This may include i.e. measurements, inspections, supervision where	Person allocated the responsibility for implementing the agreed controls	Where relevant, list the relevant legislative and or Eskom requirements that prescribe the control.	Once a date has been agreed to, this can not be changed	revised Lice	Pending, In Progress, Complete	Date Done: By whom:	
Driving on Public Roads	1 Driving	1 Vehicle Collision, Hijacking,	Safety	Employees, Members of the Public	During Project Travelling	Not paying attention, risk assement not done, not familiar with the road, making use of cellphone, distraction, exposed to unsafe behavours, congested roads, Pedestrians and live stock, Tavi and Truck on the road, Civil unrest, Fatigue of drivers	Principal Contractor Employer	No	Injuries, Fatalities, Property damage	Staff driving vehicles to have national driver's license and Defensive driving techniques, vehicles in roadworthy condition, only transport authorised staff in vehicle, pre-trip checks, and obeying of all traffic laws, Adhrence to life saving rules and drive Cam.	3 3	п	P sal	To adhere to the existing company controls, Driving leftey, Drivers Assessed, Valid effic driver licence, PDP permit	3 2		Incident records	Contractor Employer, Construction Manager Appointed	National Road Safety Act. ESKOM Procedur 32-93 (Vehicle and driver safety management). ESKOM. Procedure 36-588 (Vehicle safety and transportation management), Life saving rules	D-11	During Project	Progress		Once Contract is awarded, Safety Evaluation Done, Base Line to be revised
Long distance driving	2 Driving	Vehicle Collision, Hjjacking, Heavy transportation of equipment	Safety	Employees, Members of the Public	During Project Travelling	Not paying attention, risk assement not done, not farmialr with the road, making use of cellphone, distractions, exposed to unsafe behavours, Less rest periods, Taxi and Truck, Pedestrians and live stock		No	Injuries, Fatalities, Property damage, Equipment damage	Staff driving vehicles to have national driver's license and Defensive driving techniques, vehicles in readworthy condition, only transport authorised staff in vehicle, pre-tirp checks, and obeying of all traffic laws, a	3 3	п	P	To adhere to the existing company controls	3 2		Incident records	Contractor Employer, Construction Manager Appointed	National Road Safety Act. ESKOM Procedur 32-93 (Vehicle and management). ESKOM Procedure 36-588 (Vehicle safety and transportation management), Life saving rules	Date on	Duration of Project	In Progress		Once Contract is awarded, Safety Evaluation Done, Base Line to be revised
Removal and Replacement of existing Surge and Filter Capacitors Units	Equipment and material handling, physical work execution	Electrical contact, falling into excandions, trips falls on site, nakes, insects in trenches	Safaty	Contractor Employees, Visitors and Eskorn Employees	Duration of project	Not focussed, Not wearing appropriate PPE for task at hand, Holding loose equipment, Not following safety method statements, Risk Assessments, Daily Risk Assessments on tasks	Employer, Construction Manager appointed for contractor, Eskom Project	Yes	First aid injuries, Fatalitie or possible fractures	Safety methad statements for task to be adhered to. Training of competancy for all employees, Safety file approved with compliant contents to work, Regular safety assessments on project, task observations by Contractor Manager	2 2	IV	P Ac	dhere to the existing controls	1 2	IV	Incident records	Construction Manager Appointed	OHS ACT Act 83 of 1993, Construction Regulations as amended	Date before construction work commence		In Progress		Safety file to be assessed and safety plan to be approved for construction work prior work commencement.
Cabling works	Not paying attention, Use of cellphones while walking, 4 Inapproriate footwar Not holding to handralis, Distractions, Slip Trips	4 Falls, trips	Safety	Contractor Employees	Duration of project	Not paying attention to activity at hand, Use of cellphones while walking, Inapproriate footwear, Not closing trenches or barricading off, Distractions, Slip Trips	Employer, Construction	No	First aid injuries or possible fractures	OPERATIONAL CONTROL: All staff to obey barricading and sign posting, use of walk ways, take note of possible tripping, slipping and falling hazards. PROGRAMME: wear correct footwer, SHE talks, and apply situational awareness.		IV	P	To adhere to the existing controls	1 2	IV	Incident records	Construction Manager Appointed	OHS ACT Act 83 of 1993, Construction Regulations as amended	Date contract commencem ent	Duration of Project	In Progress		Progress safety audits to be done for assurance
Walking in and between substation buildings or facilities	Walking uneven surface, Slippery surfaces, Not paying attention, Use of cellphone while walking, Use of inappropriate foot wear, not holding onto hand rails, Distractions,	5 Falls, trips	Safety	Contractor Employees	Duration of project	Not paying attention to activity at hand, Use of cellphones while walking, Inapproriate footwear, Distractions,Slip Trips, wet areas	Principal Contractor Employer, Construction Manager appointed for contractor, Eskom Project Manager	No	First aid injuries or possible fractures	OPERATIONAL CONTROL: All staff to obey barricading and sign posting, use of handralls when ascending and descending stairs, take not of possible tripping, slipping and falling hazards. PROGRAMME: were correct footwear, SHE talks, and apply situational awareness.	4 2		p	To adhere to the existing controls	1 2	īV	Incident records		Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) section 8 (1): Employer shall provide and maintain as far as is reasonably practocable a working environment that is safe and without risk to the health of his employees.	ent of construction work	Duration of Project	In Progress		
Daily site activities and ergonomics at worksites	Poor ergonomics at workstations	6 Incorrect method of working	Health	Contractor Employees	Duration of project	Not taking regular breaks, not sitting properly,repetative work movement with tools equipment.	Employer, Construction	Yes	Injuries and back problems	Correct work site layout, ergonomically designed tools for tasks, avoid long working sessions (allowing muscles to relax).	2 2	IV	P	To adhere to the existing controls	1 1	IV	Reports and supervision		Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) Regulation 8 of the Facilities Regulation (Seats).	Project Commencem ent	Duration of Project	In Progress		
Mobile plant, equipment and tools	7 Incorrect usage of Mobile Plant, equipment, tools on site	Faulty tools cuasing rijuries, incorrect operating of plant	Safety	Contractor Employees	Daily - Construction site - hrs,	Incorrect usage of equipment, not follow procedures, method statements, untrained employees	Principal Contractor Employer, Construction Manager appointed for contractor, Eskom Project Manager	No	Injuries, Fatalities,Damage to equipment and environment	Ensure employees, operators are fully trained in operating plant and equipment and maintained under all operating circumstances	2 2	IV	P	To adhere to the existing controls	1 1	IV	Reports, Inspection and Supervision		Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) Regulation 3 of the Environmental Regulations for Workplaces (Lighting).	Project Commencem ent	Duration of Project	In Progress		
Working within the substation environment: work will be taking place in-between the security fence live chamber/electral discharge from associated equipment, e.g. capacitor banks, etc	8 Electrocution	Incorrect work methods, not following safety method statements, Risk Assessments not done for tasks, Daily Risk Assessments on tasks not done, unauthorised ORHVS workers, No supervision on employees	Safety	Contractor Employees, Visitors, Eskom Employees	During working daily in the HV environment	Incorrect work methods, not following safety method statements, Risk Assessments not done for tasks, Daily Risk Assessments on tasks not done, unauthorised ORFHVS workers, No supervision on employees	Construction Manager Appointed	No	Injury, illness, fatality and property damage, Electrical Burns	OPERATIONAL CONTROL: ORHVS Authorization Contractor Site Supenvisor (Responsible Person), EP and evacuation shared with all on work site, MONITORING AND MEASUREMENT: Regular safety assessments on risks and methods of works, inspections of electrical equipment (PEE checks), SHE rep inspections. PROGRAMME: SHE induction, tire estinguisher training, observations by project supervisor appointed, situational awareness.			P	To adhere to the existing controls	2 1	IV	Inspections	Construction Manager Appointed	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) Regulation 3 of the Environmental Regulations for Workplaces (Lighting).	Project Commencem ent	Project Duration	In Progress		
Using appropriate PPE as per Hazard Identification Risk Assessment	Improper PPE usage causing injuries to parts of body exposed	Improper usage, handling 9 and not focusing on the job at hand	Safety	Contractor Employees, Visitors, Eskom Employees	Hazardous substances (Transformer Oil), snakes, spiders, scorpions, bees, etc. During working on site daily	Incorrect work methods, not following safety method statements, Risk Assessments not done for tasks, Daily Risk Assessments on tasks not done, unauthorised ORHVS workers, No supervision on employees	Construction Manager Appointed	No	Injury, illness, fatality and property damage,Electrical Burns	SMAT Behavioural Safety	4 2			Warning signs in all areas, fety toolbox talks (awareness)	2 1	IV	Incident records, Safety observations, job observation	Construction Manager Appointed	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) Regulation 3 of the Environmental Regulations for Workplaces (Lighting).	Project commencem ent		In Progress		
Using of hot water and/or hazardous chemical substances (cement, etc.)	Chemical reaction to body parts exposed, burns, injuries to hands, feet	Reckless or negligent handling and application or hot water and hazardous substances causing the substance to splash on person	Safety	Contractor Employees, Visitors, Eskom Employees	Daily during activities exposed too the tasks	Incorrect work methods, not following safety method statements, Risk Assessments not done for tasks, Dally Risk Assessments on tasks not done, unauthorised workers, No supervision on employees	Appointed	No	Injury, burns	SHE taks, safety induction, Risk Assessments (daily), Supervision, Safety Observations, Job or Task Observations, etc.	4 2		P	gn conspiciuously displayed to warn staff, alertness and conscious of surroundings	2 1	IV	Incident records	Construction Manager Appointed	OHSAct section 8 (1): Employer shall provide and maintain as far as is reasonably practicable a working environment that is safe and without risk to the health of his employees			In Progress		

Misuse of hazardous waste substances	Chemical reaction to b  11 parts exposed, burns, is to hands, feet		Reckless or negligent handling when disposing of hazardous waste substance causing the substance to inflict harm to works/environment	Safety	Contractor Employees, Visitors, Eskom Employees	Daily during activities expose too the tasks	Incorrect work methods, not following safety method statements, Risk Assessments not done for tasks, Daily Risk Assessments on tasks and done, unauthorised workers, No supervision on employees. Unauthorised waste removal teams.	Construction Manager Appointed	No	Injury, burns	SHE talks, safety induction, Risk Assessments (daily), Supervision, Safety Observations, Job or Task Observations, etc.	4	2	P	Sign conspiciously displayed to warn staff, alertness and conscious of surroundings	2	1 N	Incident recor	Construction Manager Appointed	OHSAct section 8 (1): Employer shall provide and maintain as far as is reasonably practicable a working environment that is saft and without risk to the health of his employees	Project Commencem ent	In Progress	
Exposure to sun, wind, cold and uneven ground surfaces on site	12 Exposure extreme heat cold circumstances	and or 11	Extreme heat or Cold, hear stroke, Sunburn, Hypothermia winter time, Insufficient safe water supplies, no sunhats, no sunscreen or sunblock lotion, insect repellant, no fully equipped first aid kit.	Health	Contractor Employees, Visitors, Eskom Employees	During working daily exposed to weather elements	Insufficient safe water supplies, no sunhats, no sunscreen or sunblock lotion, Pause area not sheltered to weather elements. Not having appropriate PPE.	Construction Manager Appointed	No	winter time. Sunburn to	sufficient safe water supplies, sunhats, sunscreen or sunblock lotion, insect repellant, fully equipped first aid kit, Site specific Emergency Prepared Plan to attend to a medical emergency on site, SHE toolbox talks safety induction		2 <b>IV</b>	Р	Induction Awareness & Safety Toolbox Talks, Provide PPE as per risk identified to elements of weather.	2	1 N	Incident reco	Construction Manager Appointed	OHSAct section 8 (1): Employer shall provide and maintain as far as is reasonably practicable a working environment that is safe and without risk to the health of his employees	Commencem		
General ventilation and extraction (only applicable if working inside building and/or confined space	13 Poor Ventilation	12	Illness & discomfort	Health	Contractor Employees, Visitors, Eskom Employees	During working hrs on project	Insufficient ventilation in confined areas	Construction Manager Appointed	No	Illness & discomfort	Ensure natural ventilation present, confined space areas ventilation to be arranged and installed. Maintenance conduct regular checks on the ventilation via .	4	2	Р	To adhere to the existing controls	2	1 IV	Inspections	Construction Manager Appointed	Environmental Regulation for Workplaces 5: (Ventilation), Facilities Regulation 9: (Condition of rooms and facilities).	1		
General lifting and physical Manhandling of components	14 Improper lifting techn	niques 1:	Strains and sprains, Fractures, dislocations, fatalities, dama ge to property	a Safety	Contractor Employees, Visitors, Eskom Employees	During Project Execution usin equipment	Untrained operators, not g following method statements, improper lifting techniques	Construction Manager Appointed	No	Injuries, Fatalities, Damage to equipment	Use additional LABOUR to reduce chance of back injury, use of correct lifting techniques, make use of tolleys to transfer equipment, make use of biokinetics for back safe program. Iteratement of minor back complaints, use of correct PPE (Safety shoes, glowes 6tc.), Observations, SHE talks, STAR, Reporting of minor lifting redated injuries simmediately	4	2	Р	Discussion of Task Manual or Safe Work Method Statements for Physical material handling, Continued awareness sessions through health and wellness	2	1 N	Incidents record for project	ded Construction Manager Appointed	OHSA Section 14 - Duties of employees OHSA GSR 2(3)(c) - Personal safety equipment and facilities & 34 -106	Project Commencem ent		
Stacking and storage	15 Collapsing Improper sta and storage	acking 14	Injuries to employees, damage to equipment, delay in project	Safety	Contractor Employees, Visitors, Eskom Employees	During project execution	Not correct stacking and storage method used, not contraoled,managed safely	Construction Manager Appointed	No	Injuries,fatalities,damage to equipment	Good standard of housekeeping, Neat, stable and controlled stacking Handling methods	4	2	Р	Good stacking and storage method and managing, control of area	2	1 1	Inspections, R Assessment, Stackaing procedure to b followed.	Construction Manager Appointed	OHS ACT Act 83 of 1993, Construction Regulations as amended	Project Commencem ent		
Responding to a fire (still unannounced)- Emergency evacuation drills	Fire / Inappropriate respinmediate danger	ponse to 15	Injuries to employees, damage to equipment, delay in project, farmers land burns, propperty damage	Safety	Contractor Employees, Visitors, Eskom Employees	During project to discuss Emergency drill with emplyees	Not following fire precautions, making uncontrolled fire on premisses	Construction Manager Appointed	No	veldt burns, suffocation of	Training, escape route demarcated and unobstacted, current emergency number posted, fire drills and fire fighting equipment available, Health and safety inspections, EP procedure is discussed with team meeting.	4	2	Р	To adhere to EP plan for the construction site, work area	2	1 N	No uncontrolle open fires on construction si report fires immediately	Construction Manager Appointed	EP procedure			
Using of substation ablution and toilet facilities	17 Poor hygiene	16	Illness , diseases, discomfort	Health	Contractor Employees, Visitors, Eskom Employees	During project execution	Poor housekeeping, Hygiene on site	Construction Manager Appointed, Eskom site owner	No	Illness	Good Housekeeping, Hygiene when using biochemical facilities	2	2 IV	Р	Awareness to all employees	2	1 IV	No incidents recorded	Construction Manager Appointed	Facilities Regulation 2: (Sanitation). Facilities Regulation 5: (Eating lay down areas).			
Working on site (Contractor employees)	18 Insects	17	Injuries to employees	Safety	Contractor Employees, Visitors, Eskom Employees	During project execution	Insects disturbance, Weather conditions	Construction Manager Appointed, Eskom site owner	Yes	itching, reediness,	OPERATIONAL CONTROL: Individuals to be aware of their status regarding allergies. Seek immediate emergency care for treatment. Treatment may include: Wash the area well with soap and water. Apply: cold or ice pack wrapped in a cicht, o a cold, wet washold to the site. Protect against infection. Elevate their site if the bite occurred on an arm or leg (to help prevent swelling). PROGRAMME: SHE talks, medical surveillance and situational awareness.	3	2	Р	Employees to be tested for allergies (medical surveillance)	2	3	No incidents recorded	Construction Manager Appointed	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) & of 1993 Section: 14 GENERAL DUTIES of EMPLOYER Subsection: (a) - (d) read with Section: 21 GENERAL PROHIBITIONS Subsection: (c)	5		
	19 Bees	18	Injuries to employees,fatalities	Safety	Contractor Employees, Visitors, Eskom Employees	During project execution	Bees disturbances, Weather conditions	Construction Manager Appointed, Eskom site owner	No	Allergic reaction i.e., pain, redness, swelling, itching, sweating, anxiety, dizziness or fainting. Possible fatality.	Individuals to be aware of their status regarding allergies and inform rest of group. In the case of a bee sting, make use of a first aider.		2	Р	Employees to be tested for allergies	2	3	No incidents recorded	Construction Manager Appointed	occupational relatin and Safety Act, 1993 (Act No. 85 of 1993) 85 of 1993 Section: 14 GENERAL DUTIES of EMPLOYER Subsection: (a) - (d) read with Section: 21 GENERAL			
	20 Snakes	19	Injuries to employees,fatalities	Safety	Contractor Employees, Visitors, Eskorn Employees	During project execution	Working in the field, construction activities, substations, vegetation & weather condition	Construction Manager Appointed, Eskom site owner	Yes	Shock fever fainting	Leave snakes alone. Always be award of your surroundings. Stay out of tall your surroundings of the stay of the st	3	2	P	Employees to avoid confronting snakes, report to Eskom person of the site	2	4	No snake bites incidents recor	Construction Manager Appointed	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) 85 of 1993 Section: 14 GENERAL DUTIES of EMPLOYER Subsection: (a) - (d) read with Section: 21 GENERAL PROHIBITIONS Subsection: (c)			
Scaffolding (Working in elevated positions) and entry into work areas (overhead / elevated activities only)	Falling from scaffolding platforms, scaffolding collapsing.	2	Injuries to employees, fatalities	Safety		During project execution, erecting of scaffolding, desemble scaffolding structures	Working from elevated position using scaffolding for activities		No	Injury, fractures, fatalities	Risk Assessment for scaffolding works to be performed and approved. Scaffolding executes trained, FAS to se used on scaffold rained, FAS to of Work Specific FAIL PROTECTION PLAN and FaII Proaction Risk Assessment, Task Observations	3	2	Р	Awareness training on site, Induction to scaffolding work on site, Employees all trained on working from scaffolding structures	2	2 IV	Direct Supervision on scaffolding wo by contractor, Inspection don on scaffolding safe working condition.	Construction Manager	Occupational Health and Safety Act, 1993 (Act No. 85 of 1983) (Regulation 14 of the Construction Regulations (Scaffolding), General Safety Regulation 6: (Work in elevated positions), SANS 1008 (The Design, Erection, Use and Inspection of Access Scaffolding), Working at Height Procedure 32-418.	5		
During tea breaks and lunch breaks on site	HV Environement, not barricaded areas	21	Injuries to employees,fatalities	Safety		Not leaving HV environment during breaks, signing in and out of permit during breaks	Not paying attention, risk assement not done, not farmiliar with the place, walking, wondering around	Construction Manager Appointed, Site Supervisors appointed, employees	No	Medicals, Lost time injuries	Safety talks, Warning notice, Risk assessment and Situational awareness,	4	2	Р	Induction Training to employees, demarcated lunch, tea areas for employees,Proper planning	2	1 1	Incident record	s Manager	General Housekeeping rules for work area, sites and employees, Security measures to b adhered too.			
Working in close proximity	23 COVID-19 Corona Viru	us) 22	III Health / Death	Health		When in close proximity ( approx 2m) of a person who is infected with the Corona virus		Project Manager-Project site supervisor-Project safety officer-all employees	No	III Health. Possible death. Further exposure and infection to others	Eskom Emergency Protocols activated; Work from home; Home / hospital quarantine; Restrict unnecessary visits / contacts; Awareness campaigns; Practice good hygiene; Wear appropriate risk based PPE (respiratory masks, gloves); Toolbox talks		3 1	P	All to be continously screened and tested-also all to adhere to existing controls	5	3 1	Incident recor	Project Manager- Project site supervisor- st officer-all employees ultimately responsible for their own H&S	Wellness; NCID- National Centre for Infectious Diseases	commence ment of	Pending	

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