





Unit:	Electricity Unit – HV Projects
Document type:	Specification
Title:	COVID-19 Health and Safety Specification
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Project name

31192-5E: SUPPLY, DELIVERY, INSTALLATION AND TESTING OF OUTDOOR 132 KV AND 275 KV SWITCHGEAR AND ASOCIATED EQUIPMENT FOR A PERIOD OF THIRTY-SIX MONTHS FOR VARIOUS SUBSTATIONS

Compiled by:	Accepted by:
<p>Akona Shezi Senior Safety Officer: SHERQ and Training</p> <p></p> <p>.....</p> <p>Date: 2024-11-15</p>	<p>Qaphela Ngubane Chief Engineer: HV Projects</p> <p></p> <p>.....</p> <p>Date: 2024-12-02</p>

COVID-19 Health and Safety Specification

While engineering and administrative controls are considered more effective in minimising exposure to COVID 19, PPE may also be needed to prevent certain exposures. While correctly using PPE can help prevent some exposures, it should not take the place of other prevention strategies.

This Health and Safety Specification deals with the current COVID-19 pandemic on work sites and what needs to be adhered to. It covers most scenarios, and each Employer or Contractor should consider their own unique circumstances and make the necessary calls in the interest of the health and safety of their workers.

4. COVID-19 Risk Assessment

- 4.1 The Contractor shall ensure that a COVID-19 Risk Assessment and COVID-19 Health and Safety Plan is developed and submitted to the Client prior to commencement of any work. The plan shall be in line with the Client's COVID-19 Health and Safety Specification.
- 4.2 The Contractor shall appoint a COVID-19 Compliance Officer to ensure that all necessary COVID-19 safety precautions are implemented.
- 4.3 If the Contractor employs more than 500 employees, that contractor must submit a record of its risk assessment together with a written policy concerning the protection of the health and safety of its employees from COVID-19 as contemplated in section 7(1) of the OHS Act to its health and safety committee established in terms of section 19 and of OHS Act and the DoEL.
- 4.4 The Contractor must ensure that the measures required by the Consolidated Directions on Occupational Health and Safety Measures in Certain Workplaces dated 28 September 2020 and its risk assessment plan are complied with through monitoring and supervision.

5. Training and awareness

- 5.1 The Contractor shall ensure that all its workers are inducted on COVID-19 risk assessment.
- 5.2 The Contractor shall ensure that its workers are trained on COVID-19 to prevent the spread of the virus. Training records shall be kept in the safety file.
- 5.3 Consolidated Directions on Occupational Health and Safety Measures in Certain Workplaces dated 28 September 2020, shall be used as a guideline to the management of COVID-19 at workplaces and work sites.
- 5.4 The Contractor shall provide its workers with information that raises awareness in any form or manner, including where reasonably practicable leaflets and notices placed in conspicuous places in the workplace informing workers of the dangers of the virus, the manner of its transmission, the measures to prevent transmission such as personal hygiene, social distancing, use of cloth masks, cough etiquette and where to go for screening or testing if presenting with symptoms.

6. Hygiene

- 6.1 The Contractor shall provide adequate facilities for the washing of hands with soap and clean water on each construction site.
- 6.2 The Contractor shall provide 70 % alcohol-based hand sanitiser at strategic points of the construction site.
- 6.3 The Contractor shall provide paper towels to dry hands after hand washing, with bins to dispose of these as may be required.

7. Cleaning and Disinfecting

- 7.1 The Contractor shall take measures to ensure that all work surfaces and equipment are disinfected before work begins, regularly during the working period and upon completion of the work.
- 7.2 The Contractor shall ensure frequent cleaning and disinfecting objects and surfaces that are touched regularly, particularly in areas of high use such as shared tools, shared construction vehicles, etc. using appropriate disinfecting solutions such as clean water, soap and bleach.

8. Social Distancing

The Contractor shall arrange the site to ensure minimal contact between workers and as far as practicable while they are working. Although social distance is no longer mandatory, workers shall be made aware and be encouraged to maintain social distance when working.

9. Personal Protective Equipment (PPE)

- 9.1 When required, the Contractor shall ensure that every worker is provided with two cloth masks to be worn when in the workplace or public space which comply with the requirements set out in the guideline issued by Department of Trade, Industry and Competition.
- 9.2 The main benefit of everyone wearing a cloth mask is to reduce the amount of virus droplets being coughed up or becoming airborne during normal conversations by those with infection and transmitted to others and to surfaces which others may touch.

14.11 The Contractor shall ensure that if a worker has been diagnosed with COVID-19 and isolated in accordance with the DoH Guideline, a Contractor may only allow a worker to return to work only when the worker has produced a medical certificate of clearance.

15. Emergency Numbers

- 15.1 COVID-19 24-hour hotline number: 080 002 9999.
- 15.2 COVID-19 WhatsApp number: 060 012 3456.
- 15.3 COVID-19 National Crisis Helpline: 0861 322 322.
- 15.4 National Institute of Communicable Diseases 24-hour hotline number: 0800 029 999 or 0800 111 132.
- 15.5 SAPS gender-based violence service complaints: 0800 333 177.
- 15.6 Gender Based Violence Command Centre: 0800 428 428/ *120*7867# (free from any cell phone)/SMS line: 32312.
- 15.7 Women Abuse Helpline: 0800 150 150.
- 15.8 People Opposing Women Abuse: 011 642 4345/ Afterhours cell number: 083 765 1235.
- 15.9 Child Line: 0800 055 555.
- 15.10 Lifeline South Africa: 0800 012 322 (free on mobile networks including landlines).
- 15.11 FAMSA: Advice on family relationships – 011 975 7107.
- 15.12 Persons with Disabilities: SMS 'help' to 31531.
- 15.13 National AIDS Helpline: 0800 567 567.
- 15.14 Substance Abuse Helpline: 0800 12 12 14.

16. Recommended Best Practice

The Contractor shall ensure that vulnerable workers who are 60 years and older are identified and receive special measure for their protection in accordance with the Guidance on Vulnerable Employees and Workplace accommodation in relation to COVID-19 (version 4 dated 25 May 2020). 16.2 The Contractor shall ensure that for communication, Microsoft Teams, Zoom, Skype, etc. are utilised as far as possible to minimise personal interaction.

17. References



- a) Disaster Management Act.
- b) Occupational Health and Safety - The Department of Employment and Labour: Workplace Preparedness: COVID-19 (SARS-CoV-19 virus).
- c) Consolidated Directions on Occupational Health and Safety Measures in Certain Workplaces Hazardous Biological Agents Regulations.
- d) National Institute for Occupational Health (NIOH).



Unit:	Electricity Unit – HV Projects
Document type:	Risk Assessment
Title:	Project Baseline Risk Assessment
Reference number:	PBRA15/11/2024
Version:	2.0
Effective date:	15 November 2024

Project name

31192-5E: SUPPLY, DELIVERY, INSTALLATION AND TESTING OF OUTDOOR 132 KV AND 275 KV SWITCHGEAR AND ASOCIATED EQUIPMENT FOR A PERIOD OF THIRTY-SIX MONTHS FOR VARIOUS SUBSTATIONS

Compiled by:	Accepted by:
<p>Akona Shezi Senior Safety Officer: SHERQ and Training</p> <p></p> <p>.....</p> <p>Date: 2024-11-15</p>	<p>Qaphela Ngubane Chief Engineer: HV Projects</p> <p></p> <p>.....</p> <p>Date: 2024-12-02</p>

Project Baseline Risk Assessment

Scope

The following should be considered:

- workplace
- all operational activities
- tasks being performed
- legal requirements

1. Severity, i.e. extent of potential harm/loss/damage	Value
Catastrophic	5
Serious	3
Negligible	1

2. Frequency, i.e. how often and/or how long persons may be affected within a defined time period	Value
Frequent	5
Occasional	3
Rarely	1

3. Exposure, i.e. percentage of a workforce exposed to a hazard/risk and/or duration of exposure	Value
Extensive	5
Significant	3
Negligible	1

4. Risk Classification	Values
Low risk	0 – 24
Moderate risk	25 - 74
High risk	75 - 125

[illegible]

31192-5E: SUPPLY, DELIVERY, INSTALLATION AND TESTING OF OUTDOOR 132 KV AND 275 KV SWITCHGEAR AND ASSOCIATED EQUIPMENT FOR A PERIOD OF THIRTY-SIX MONTHS FOR VARIOUS SUBSTATIONS

Risk Assessment: Client Baseline Risk Assessment Activity: Construction Work Task: Use of Tools												Reviewed on: 15.11.2024 Compiled by: SHERQ Division Revision: 2		
Hazards	Associated Risk	Effect	Pure Risk before rating				Engineering Controls	Administrative Controls	PPE Controls	% Control	Residual Risk	Action Needed		
			S	F	E	R								
Hand held tools	Injuries - Cuts, splinters, abrasions, puncture impact, flying particles / objects	S	3	3	3	27		1) Employees trained on basic hand skills 2) All hand tools are inspected prior to use and any defects are reported to the supervisor for replacement 3) All hand tools are kept in safe operating condition 4) Employees instructed to use the right tool for the job	1) Employees are issued with the appropriate PPE – gloves, safety glasses, safety footwear and overalls	0.6	10.8			
Portable electric equipment	Electric shock, cuts, splinters, abrasions, puncture injuries, impact, flying particles / objects	S	3	3	3	27	1) Portable earth leakage units are used when operating portable electric tools 2) Double insulated tools are used where not earthed	1) Employees trained on safe use of portable electric tools 2) All portable electric tools are inspected prior use and defects reported for replacement 3) All portable electric tools are kept in safe operating condition 4) Employees advised not to wear loose clothing, jewelry and loose hair as it may be entangled onto the moving parts of the machinery	1) Employees are issued with the appropriate PPE – gloves, eye protection, safety footwear, gloves	0.8	5.4			
Power Tools	Hand arm vibration White finger syndrome Puncture wounds	S	3	1	3	9	1) Regular maintenance of power tools to	1) Employees trained on the safe use of power tools	1) Employees issued with the appropriate PPE - safety footwear, gloves,	0.8	1.8	Employer to supply the lowest vibration emitting equipment		

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Substation work	Electric shock Electrocution Electrical fires Electrical arcing Electric burns	S	3	3	3	27		2) Only authorized persons to enter and undertake work in a substation 3) All employees to adhere to the Substation COP, Safety Rules and Operating Regulations when undertaking work in a substation	1) Employees are issued with the appropriate PPE- as prescribed in pictograms at all Substations	0.6	10.8
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Risk Assessment: Client Baseline Risk Assessment Activity: Construction Work Task: Fire Protection and Prevention										Reviewed on: 15.11.2024 Compiled by: SHERQ Division Revision: 2		
Hazards	Associated Risk	Effect	Pure Risk before rating				Engineering Controls	Administrative Controls	PPE Controls	% Control	Residual Risk	Action Needed
			S	F	E	R						
Arson	Burns Explosions Fire Smoke inhalation	S	5	3	3	45	1) Security presence to prevent trespassers from deliberately or accidentally starting a fire	1) Liaison with the local police where possible 2) Limit the number of combustibles on site 3) Properly stored flammable liquids, LPG and other combustible materials 4) Reducing potential fuel sources 5) Good housekeeping practices 6) Emergency request for assistance cards provided to employees 7) Employees trained on basic fire fighting	1) All employees are issued with arc rated PPE 2) Fire extinguishers and first aid kits are provided for all sites	0.8	9	
Poorly maintained electrical equipment such as switchgear, mini-sub, etc.	Burns Explosions Fire Smoke inhalation	S	5	3	3	45	1) Maintenance employees conduct regular maintenance to all electrical equipment	1) Work orders are generated for all electrical equipment that requires maintenance	1) All employees are issued with arc rated PPE 2) Fire extinguishers and first aid kits are provided for all sites	0.8	9	

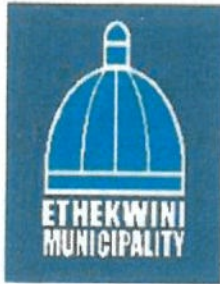
31192-5E: SUPPLY, DELIVERY, INSTALLATION AND TESTING OF OUTDOOR 132 KV AND 275 KV SWITCHGEAR AND ASSOCIATED EQUIPMENT FOR A PERIOD OF THIRTY-SIX MONTHS FOR VARIOUS SUBSTATIONS

Risk Assessment: Client Baseline Risk Assessment Activity: Construction Work Task: Hazardous Chemical Substances										Reviewed on: 15.11.2024 Compiled by: SHERQ Division Revision: 2		
Hazards	Associated Risk	Effect	Pure Risk before rating				Engineering Controls	Administrative Controls	PPE Controls	% Control	Residual Risk	Action Needed
			S	F	E	R						
HCS - Solids, dust, fibres, fumes, gases, mists, vapours, liquids, asbestos	Occupational Dermatitis Occupational Asthma Headaches Dizziness Nausea Unconsciousness, Silicosis Cancer Irritant	SH	3	3	3	27	1) Local exhaust ventilation, ducted extraction systems collection hoods to draw mists and vapours away from operator	1) Medical surveillance 2) Employees are trained in the safe use and handling of all chemicals that they may be exposed to using the relevant MSDS 3) PTR A	1) Employees are issued with the appropriate PPE - chemical cartridge respirators, face shield, solvent resistant gloves, boots, aprons	0.8	5.4	1) All employees must be formally trained to understand what precautions they are required to take to avoid being negatively affected 2) Wear face shield to protect against splashes to face and eyes 3) Wear solvent resistant gloves, boots and aprons. 4) Work with chemical aerosols in a well-ventilated area 5) Store chemicals in tightly closed, original container in a dry, cool, well-ventilated area 6) Always wash hands before breaks and immediately after handling the product 7) Aerosol cans must not be exposed to direct sunlight or temperatures above 50°C 8) Keep away from sources of ignition
Chemical Hazards	Asphyxiation Fumes (CO2) Suffocation Methane Explosion Transformer oil Silica gel	SH	3	3	3	27		1)Medical surveillance 2) Employees are trained on MSDS and in the safe use and handling of HCS	1) Employees are issued with the appropriate PPE when working with chemicals in confined spaces	0.6	10.8	

									international standards and best practices			
Psychological and physical wellbeing Vertigo Blood Pressure Levels Blood Sugar Levels Hydration	Fainting Falls from height Fatality Fractures Lacerations Soft tissue injuries	SH	5	3	3	45			1) Employees are required to undergo annual medicals and be deemed medically fit before being allowed to work at height	0.6	18	1) Employees to report any medical conditions which may hamper their ability to work at height
Falling from height	Head injuries Contusion Fracture Soft tissue injuries Fatality	S	5	3	3	45			1) Supervisors to ensure that a PTFA is completed and that risks are discussed 2) Areas under and around elevated working platforms are barricaded to keep persons out of this area 3) Ladders are inspected periodically	0.8	9	1) Employees to be cognizant of the possibility that items/equipment can fall from overhead gantries and apparatus 2) Employees are to ensure that they are fully clad in the appropriate PPE before entering/whilst they are within the confines of the substation 3) Personnel are to be clear of all areas directly under where work is being undertaken 4) Areas where overhead is being undertaken must be barricaded to restrict access into the danger area
Incllement weather High wind Precipitation High humidity Lightning Temperature	Falls from height Fatality Fractures Electric shock Lacerations Soft tissue injuries	S	5	3	3	45		1) PTFA	Employees are issued with the appropriate PPE for the tasks	0.8	9	1) Adherence to Fall protection training 2) Wet and inclement weather work needs to be defined
Unstable ground Low load bearing ground conditions Steeply sloped terrain	Scaffold/ working platform can fall over or collapse Injuries Fatalities Property damage	S	3	5	3	45		1) Employees have been trained on the safe erecting, use and dismantling of the scaffolds 2) Scaffolding components are inspected by an Appointed Competent	1) Employees are issued with the appropriate PPE to work with and on scaffolds	0.8	9	1) Employees to exercise caution when erecting scaffolding in hazardous terrain 2) A Competent or Specifically Trained Person is to scout the area to assess the ground conditions first before any scaffolding is erected and suitable steps must be taken to ensure that the scaffold is safe to use

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Reviewed on: 15.11.2024 Compiled by: SHERQ Division Revision: 2												
Risk Assessment: Client Baseline Risk Assessment Activity: Construction Work Task: Working in Confined Spaces												
Hazards	Associated Risk	Effect	Pure Risk before rating				Engineering Controls	Administrative Controls	PPE Controls	% Control	Residual Risk	Action Needed
			S	F	E	R						
Oxygen deficient environments Build-up of exotic gases	Asphyxiation Explosive atmospheric environments	SH	3	1	3	9	1) Substations are fitted with positive pressure fans which ensure that there is a fresh supply of air into the basement areas 2) Teams are issued with portable purging fans to ensure that fresh air is always circulated into the confined space	1) PTR 2) Before employees undertake any work in confined spaces the atmosphere is tested to evaluate the air quality within that environment	1) Employees issued with appropriate PPE for tasks	0.8	1.8	1) A comprehensive procedure for Entry into Confined Spaces needs to be developed 2) Employees to be trained on the procedure 3) All equipment which generates noxious gases must not be allowed into confined spaces 4) Alternative methods to undertake the work must be investigated 5) All lighting installed, used or introduced into the confined space to be Ex rated
Inadequate lighting	Falls, slips and trips Touching of incorrect equipment Operating incorrect equipment Compromised sight and co-ordination	S	5	3	3	45		1) PTR 2) Electrical Inspectors undertake routine planned inspections	1) Employees are issued with portable headlights to increase illumination at night or in confined spaces	0.6	18	1) Emergency lighting must be made available if all other methods of illumination have failed 2) All defective luminaries must be repaired/replaced 3) All lighting installed, used or introduced into the confined space to be Ex rated
Combustible environments: exotic gases Methane LPG	Explosions Fire Burns Fatality Damage to equipment and property Exposure to toxic gases and fumes	SH	5	1	3	15	1) Substations are fitted with positive pressure fans which limits the quantity of dust entering the facility 2) Purge fans to be used for circulating/purging	1) PTR 2) Employees undertake routine cleaning of the substation on a planned maintenance schedule		0.8	3	1) Entry into Confined Spaces procedure must be followed. 2) Approved gas detectors must be used to analyse the atmospheric properties 3) Personal air monitors must be used to ensure that the atmosphere in the



Client	Electricity Unit – High Voltage Projects
Document Type	Legal Agreement
Title	37.2 Mandatory Agreement
Reference Number	37.2 MA/HVP15/11/2024
Revision	2.0
Effective Date	15 November 2024

Project Name

31192-5E: SUPPLY, DELIVERY, INSTALLATION AND TESTING OF OUTDOOR 132 KV AND 275 KV SWITCHGEAR AND ASSOCIATED EQUIPMENT FOR A PERIOD OF THIRTY-SIX MONTHS FOR VARIOUS SUBSTATIONS

Compiled by:

Akona Shezi
Senior Safety Officer: SHERQ and Training

.....
Date: 2024-11-15

Accepted by:

Qaphela Ngubane
Chief Engineer: HV Projects

.....
Date:

2024-12-02

37.2 Mandatory Agreement

ETHEKWINI MUNICIPALITY
TRADING SERVICES
ELECTRICITY UNIT

1 Taylor Crescent
Jelf Durban
4001
P O Box 147
Durban
4000
Tel: (031) 311 1111
Fax: (031) 311 9010
Website:
www.durban.gov.za



Contractor Acknowledgement of Responsibility in terms of the Occupational Health and Safety Act

Written agreement between **EtheKwini Municipality Electricity Unit – HV Projects**
(the “employer”)

and

..... (the “mandatory”)
as provided for in terms of Section 37 (2) of the Occupational Health and Safety Act No.85 of 1993 as amended by Act 181 of 1993.

I hereby declare that I,, am authorised to represent the “mandatory” and acknowledge that the “mandatory” is an employer with all duties and responsibilities as prescribed in the Occupational Health and Safety Act no. 85 of 1993.

I agree to ensure that all work performed or machinery and plant used by the “mandatory” on any EtheKwini Municipality premises shall be in accordance with the provisions of the said Act.

Furthermore, I agree the “mandatory” shall comply with all EtheKwini Municipality Electricity Unit site rules and safety, health, and environmental requirements as may be communicated or stipulated by EtheKwini Municipality Electricity Unit prior to and during the course of any Contract awarded to the “mandatory” by EtheKwini Municipality Electricity Unit.

Furthermore, I undertake to ensure that EtheKwini Municipality Electricity Unit is timeously informed should the “mandatory”, for whatever reason, be unable to perform in terms of this agreement.

The Contractor shall be registered with an appropriate employment Compensation commissioner and have available valid letters of good standing from such commissioner. The Contractor shall have an up-to-date copy of the OHS Act (85 of 1993) and supporting regulations.

A Covid - 19 Risk assessment must also be performed and recorded in writing by a competent person and must include measures to curb the spread of Covid - 19.

It is the responsibility of the driver to ensure:

1. He/she and their passengers wear seat belts whilst the vehicle is in motion
2. Comply with all traffic road rules, safety, direction and speed signs
3. Ensure that vehicle loads are properly secured prior to moving off
4. Ensure that vehicles are not overloaded

All drivers are to have valid medical certificates of fitness.

The contractor shall also comply with all the requirements contained in the Occupational Health and Safety Act (85 of 1993) and its supporting Regulations, National Environmental Management Act (107 of 1998), Compensation for Occupational Injuries and Diseases Act (130 of 1993), Applicable South African National Standards (SANS), eThekweni Electricity Substation, Overhead and Underground Mains Codes of Practices, eThekweni Electricity Safety Rules and eThekweni Electricity Operating Regulations where applicable to ensure that no legislative requirement is omitted in error.

Signed thisday of20.....

On behalf of the “mandatary” (print)

(sign)

On behalf of the “employer” (print)



(sign)



Unit:	Electricity Unit – HV Projects
Document type:	Specification
Title:	Site Specific Health and Safety Specification
Reference number:	SSHSS15/11/2024
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Project name

31192-5E: SUPPLY, DELIVERY, INSTALLATION AND TESTING OF OUTDOOR 132 KV AND 275 KV SWITCHGEAR AND ASOCIATED EQUIPMENT FOR A PERIOD OF THIRTY-SIX MONTHS FOR VARIOUS SUBSTATIONS

Compiled by:	Accepted by:
<p>Akona Shezi Senior Safety Officer: SHERQ and Training</p> <p></p> <p>.....</p> <p>Date: 2024-11-15</p>	<p>Qaphela Ngubane Chief Engineer: HV Projects</p> <p></p> <p>.....</p> <p>Date: 2024-12-02</p>

Site Specific Health and Safety Specification

1.1 Definitions

For the purpose of this contract the following shall apply:

- (a) "Agent" means a competent person who acts a representative for a client.
- (b) "Client" means any person for whom construction work is being performed.
- (c) "Construction Manager" means the competent person responsible for the management of physical construction processes and co-ordination, administration and management of resources on any construction site.
- (d) "Contractor", wherever used in the contract documents and in this specification, shall have the same meaning as "Contractor" as defined in the General Conditions of Contract.

In this specification the terms "Principal Contractor" and "Contractor" are replaced with "Contractor" and "Sub-contractor" respectively.

For the purpose of this contract the "Contractor" will, in terms of OHS Act (1993), be the mandatory of the Employer, without derogating from his status as an employer in his own right.

- (e) "Employer" where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as "Client" as defined in the Construction Regulations (2014). "Employer" and "Client" is therefore interchangeable and shall be read in the context of the relevant document.
- (f) "Engineer/Designer" where used in this specification, means the Engineer as defined in the General Conditions of Contract. In terms of the Construction Regulations the Engineer may act as Agent on behalf of the Employer (the Client as defined in the Construction Regulations).

1.2 Scope

This specification covers the Health and Safety requirements to be fulfilled by the Contractor to ensure a continued safe and healthy environment for all employees under his control, and for all other persons entering the site of works, including the health and safety of members of the public.

This specification shall be read in conjunction with the Occupational Health and Safety Act (85 of 1993) and the corresponding Construction Regulations (2014), the eThekweni Electricity OHM, UGM and Substation Codes of Practice, the eThekweni Electricity Safety Rules, the eThekweni Electricity Operating Regulations and all other safety codes and specifications referred to in the said Construction Regulations (2014).

In terms of Section 37(2) of the OHS Act, the status of the Contractor as mandatory to the Employer (Client) is that of an employer in his own right, responsible to comply with all provisions of the OHS Act and the Construction Regulations.

A copy of this Health and Safety Specification, the Contractor's Health and Safety Plan, as well as the Construction Regulations shall be kept on site and made available for inspection by all employees, inspectors, eThekweni Electricity Unit Representatives and any other persons entering the site of works or the Contractors premises.

2. MINIMUM ADMINISTRATIVE REQUIREMENTS

2.1 Notification of Construction Work

After award of the contract, prior commencement of construction work, a contractor that is issued with construction work shall, in terms of Regulation 4, notify the Provincial Director of the Department of Employment and Labour in writing at least 7 days before the work is carried out, if the following work is involved:

- (a) the demolition of structure;
- (b) the use of explosives;
- (c) excavation work;
- (d) working at a height where there is risk of falling.

The notification must be done in the form of the pro-forma included in Annexure 2 of the Construction Regulation (2014).

A copy of the stamped notification form must be kept in the contractors health and safety file. Where it is impractical to notify the Provincial Director of the Department of Labour as a result of Maintenance and/or Emergency work, the contractor must apply for Exemption under Section 40 of the OHS Act.

2.2 Occupational Health and Safety Act (85 of 1993)

All Contractors shall have an up to date copy of the OHS Act (85 of 1993) and supporting regulations kept in a safety file which will be available to all relevant parties.

2.3 Section 37(2) Agreement

A section 37(2) agreement must be signed between the eThekweni Electricity Unit and all contracting parties. All Contractor(s) must ensure that a section 37(2) agreement is complied with. A copy of the 37(2) agreement(s) must be kept in the health and safety file.

2.4 Compensation for Occupational Injuries and Diseases Act (130 of 1993)

All Contractors shall be registered with an appropriate employment Compensation commissioner and have available valid letters of good standing from such commissioner. A copy of this letter shall be filed in the Contractors health and safety file.

2.5 Legislative Compliance

All contractors shall comply with the following legislation and eThekweni Electricity standards:

- The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights)
- Occupational Health and Safety Act (85 of 1993) and Regulations
- National Environmental Management Act (107 of 1998)
- National Road Traffic Act (93 of 1996)
- Compensation for Occupational Injuries and Diseases Act (130 of 1993)
- Applicable South African National Standards (SANS)
- eThekweni Electricity OHM, UGM, Substation Codes of Practice
- eThekweni Electricity Safety Rules
- eThekweni Electricity Operating Regulations

- Notification of Construction Work in terms of Construction Regulation 4 (Annexure 2, where applicable)
- Copy of OHS Act (updated)
- Proof of Registration and Good Standing with a COID Insurer or licensed compensation insurer
- Copy of health and safety plan
- OHS Programme agreed with Client including the underpinning Risk Assessment and Safe Work Procedures
- Designs/drawings
- A list of Contractors (Sub-contractors) including copies of the agreements between the parties and the type of work being done by each Contractor
- All Appointments/Designations forms required by the Act and Regulations
- Relevant Equipment and Tools registers and checklists
- Personal Protective Equipment issue register
- Health and Safety Induction Records
- Incidents Recording and Investigation forms and records
- Emergency Preparedness Plans
- Health and Safety Committee Meetings Minutes
- Medical Certificates of Fitness
- SHEQ Policy

The health and safety file shall be handed over to eThekweni Electricity Unit on completion of the contract.

2.11 Risk Assessment

Prior to the commencement of any construction work, the Contractor shall have a risk assessment performed and recorded in writing by a competent person.

Risk assessment is a measure of the likelihood that the harm from a particular hazard will be realized, taking into account the possible severity of the harm. Harm to people includes death, injury (permanent or temporary), physical or mental health or any combination thereof. Risk management in health and safety includes the identification of hazards, assessing risks, taking action to eliminate or reduce the risk, monitoring the effectiveness and performing regular reviews of the entire process. The Contractor shall compile Written Safe Working Procedures to address or handle the following:

- Hazards particulars to contract
- Identify what could go wrong and how
- Identify the likelihood of this happening
- Identify the persons at risk
- Identify the extent of possible harm
- Measures to eliminate or reduce each risk
- A monitoring plan
- A review plan

Contractors must ensure that all sub-contractors conduct risk assessments for their scope of work as well.

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, employer, engineer, employees, trade unions and health and safety committee members, and must be monitored and reviewed by the contractor on regular intervals agreed to with the Client.

All Contractors must complete a Documented Pre -Task Risk Assessment prior to the commencement of any work or task. Hazards identified and precautionary measures must be discussed before work

2.13.3 Construction Safety Officer or Client Safety Agent Appointment

Subject to the decision by the Inspector of the Department of Employment and Labour and taking into consideration the size of the project and the hazards or dangers that can be expected, the Contractor shall appoint in writing a Construction Safety Officer. The appointed Safety Officer shall be registered with a Statutory Body, i.e. South African Council for the Project and Construction Management Professions (SACPCMP).

If the Client decides to engage an external Safety Consultant, the Client must first check with SHERQ and Training Division to determine the capacity to handle the proposed project, the Safety Consultant will be appointed by the Client and approved by SHERQ and Training Division in terms of his/her qualifications and experience in the field of construction safety. The appointed Client Agent shall be registered with a Statutory Body, i.e. South African Council for the Project and Construction Management Professions (SACPCMP).

2.13.4 Additional Legal Appointments

In accordance with the Construction Regulations (2014) and depending on the project type the Contractor shall appoint, in writing, competent persons responsible for supervising construction work for the following work situations that may be expected on the site of the works.

- (a) Risk Assessment (Construction Regulation 9);
- (b) Excavation Work (Construction Regulation 13);
- (c) Construction Vehicle and Mobile Plant (Construction Regulation 23)
- (d) Electrical Installation and Machinery on Construction Site (Construction Regulation 24);
- (e) Housekeeping on Construction Sites (Construction Regulation 27)
- (f) Stacking and Storage on Construction Sites (Construction Regulation 28);
- (g) Fire Precautions on Construction Sites (Construction Regulation 29);
- (h) Construction Employee's Facilities (Construction Regulation 30);
- (i) Accident/Incident Investigator (General Administration Regulation 9);
- (j) First Aider (General Safety Regulation 3);
- (k) Health and Safety Representative (OHS Act Section 17);
- (l) Supervision of Machinery (General Machinery Regulation 2.1);
- (m) Assistant Supervision of Machinery (General Machinery Regulation 2.7a)

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work in all the work situations for which he/she has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the Contractor from any of his/her responsibilities to comply with all requirements of the Construction Regulations.

2.13.5 Principal Contractor Appointment

All Contractors who have been awarded a tender must accept a Principal Contractor's Appointment Letter from eThekweni Electricity Unit in accordance with CR 5(1)(k) of Construction Regulations (2014).

2.14 Health and Safety Induction Training

The Contractor shall ensure that all employees under his/her control attend the eThekweni Electricity health and safety induction training course offered by SHERQ and Training Division. No visitor or other person shall be allowed or permitted to enter any worksite unless such person has undergone eThekweni Electricity's health and safety training pertaining to hazards and risks which may be prevalent on work sites.

3.1.3 Close out

All incident investigation reports shall be closed out once all the recommendations to prevent further incidents have been carried out and a copy of the investigation report must be handed to the Electricity Unit SHERQ and Training Division.

3.2 First Aid Box and First Aid Equipment

The requirements of the OHS Act General Safety Regulation 3 must be observed. First Aid appointments must be made to meet the requirements. Each work site must have at least one employee trained in First Aid - Level One, at the minimum. When appointing employees for work sites, cognizance must be considered regarding the type of work to be performed, the distance teams are working apart and the terrain to be covered if an emergency should arise. All contractor vehicles shall have an Emergency Request for Assistance notice displayed prominently, where it can be easily seen. All contractor vehicles or work sites shall have at least one first aid box, and thereafter additional first aid boxes for every 50 or team of workers on site or part thereof, again considering the type of work performed, the distance teams are working apart and the terrain to be covered if an emergency should arise. More first aid boxes should be provided, if the risks dictate. Boxes must be available and accessible for the immediate treatment of injured persons at any work site. The appropriate stick-on signage must be placed on the outside of vehicles and/or mobile equipment to indicate where first aid boxes are located.

Boxes and equipment

The following is a list of minimum contents of a first aid box:

- ☐ Item 1: Wound cleaner/antiseptic (100ml);
- ☐ Item 2: Swabs for cleaning wounds;
- ☐ Item 3: Cotton wool for padding (100 g);
- ☐ Item 4: Sterile gauze (minimum quantity 10);
- ☐ Item 5: 1 Pair of forceps (for splinters);
- ☐ Item 6: 1 Pair of scissors (minimum size 100 mm);
- ☐ Item 7: 1 Set of safety pins;
- ☐ Item 8: 4 Triangular bandages;
- ☐ Item 9: 4 Roller bandages (75 mm X 5 m);
- ☐ Item 10: 4 Roller bandages (100 mm X 5 m);
- ☐ Item 11: 1 Roll of elastic adhesive (25 mm X 3 m);
- ☐ Item 12: 1 Non-allergenic adhesive strip (25 mm X 3 m);
- ☐ Item 13: 1 Packet of adhesive dressing strips (minimum quantity, 10 assorted sizes);
- ☐ Item 14: 4 First aid dressings (75 mm X 100 mm);
- ☐ Item 15: 4 First aid dressings (150 mm x 200 mm);
- ☐ Item 16: 2 Straight splints;
- ☐ Item 17: 2 Pairs large and 2 pairs medium disposable latex gloves;
- ☐ Item 18: 2 CPR mouth pieces or similar devices;
- ☐ Item 19: 1 Burn shield

A content check list must be available with all boxes and boxes shall be checked on a regular basis, kept clean and dust free.

3.3 Fire Extinguishers and Fire-fighting Equipment

Every contractor vehicle and every work site must have at least one Dry Chemical Powder fire extinguisher, each with a minimum capacity of 4.5 kg, considering the type of work performed, the distance teams are working apart and the terrain to be covered if a fire should occur. Every contractor must ensure that every employee is familiar with the use of a portable fire extinguisher. All fire extinguishers in contractor vehicles must:

3.5 Housekeeping

All contractors shall maintain a high standard of housekeeping within a worksite, prompt disposal of waste materials, scrap and rubbish is essential. Nails protruding through timber and cable armoring sharp edges shall be bent over or removed so as not to cause injury.

All packaging material including joint boxes, cable drum planks, pallets, crates, etc. to be removed from the work area immediately. On completion of the work, the contractor is responsible for clearing the worksite of all materials, scrap, etc. eThekweni Electricity has the right to instruct the contractor to cease work until the area has been tidied up and made safe. All contractors shall carry out regular safety/housekeeping inspections (at least weekly) to ensure maintenance of satisfactory standards.

Housekeeping on/in vehicles is of paramount importance. If contractor employees are to be transported in the back of construction vehicles, then those vehicles are to be fitted with canopies and have fixed and firmly secured seats with seat belts adequate for the number of passengers being transported, tools, equipment and material to be secured in order to prevent movement. All tools, materials and equipment to be stored in their toolboxes, shelves, etc. No materials, tools and equipment is permitted to be left lying around at the back of construction vehicles.

Employees are not to be transported in construction vehicles unless the compartment they are travelling in complies with the requirements of the Road Traffic Act, and tools, equipment and materials are physically separated from the employees by a suitable barrier.

3.6 Thermal Conditions

All contractors must protect their employees against natural thermal conditions, by providing sufficient and suitable cold weather gear for the winter months and suitable rainwear for the rainy seasons.

In hot conditions, contractors must prevent the effects of heat fatigue and heat exhaustion by providing sufficient rest periods, shaded cover where possible, and re-hydration mineral replenishment fluids.

3.7 Night work

Where any night work is to be performed, then contractors shall provide sufficient lighting to enable the entire worksite to be illuminated to a degree that no employee must not have to work in any dark (un-illuminated) areas. If work is continuing from day light into night, at dusk, a tail gate meeting (Pre-Task Risk Assessment) must be held where all employees must be advised of the hazards of night work and the extra precautions that are required to be taken, i.e. poor housekeeping, stepping on uneven ground, stepping into holes, etc.

The entire work site must be suitably lit to meet the minimum lux guidelines as provided for in the Environmental Regulations for Workplaces of the OHS Act.

3.8 Work in confined spaces or enclosures

Confined spaces include joint holes, cable boxes, vessels, transformer tanks, chambers, oil tank compartments, etc.

Attention is drawn to General Safety Regulation 5 (Work in Confined Spaces) of the Occupational Health and Safety Act, 1993. No person shall enter a confined space or enclosure until the degree of oxygen has been established by utilizing an approved monitor, and as the case may be, it has been adequately cleared of any dangerous liquid or purged with air to clear any dangerous concentration of gas or fumes by using ventilation fans. In the case of vessels, transformer tanks, chambers, etc., at least one other person who is adequately trained in rescue and resuscitation procedures shall remain in attendance, outside of and next to the entrance thereof whilst any person is within; and where there is the possibility of the presence of flammable liquids, gases or fumes, effective precautions must be taken to prevent ignition by the avoidance

- Safety harnesses and double lanyards;
- Approved lifelines
- Other approved means

Fall arrest plan and equipment to be implemented where fall prevention is not possible.

All fall protection equipment shall comply with SANS standards and other recognized international standards. The Contractor and/or his/her sub-contractor shall compile fall protection equipment, inspection and testing and maintenance procedure.

Where required, conduct specific risk assessments to determine the suitability of climbing methods to be used. Cognizance must be made into all the different climbing methods to be used. Ensure that the relevant training in the use, care and maintenance of the appropriate fall protection and rescue equipment is provided.

4.1.2 Working in elevated positions

All employees working above ground level shall use the appropriate fall protection equipment unless working from a solid platform protected by suitable barricading.

4.1.3 Scaffolding

The requirements for using a scaffold platform shall be determined in the working at heights risk assessment. All scaffolding that will be used shall conform to the SANS standard 10085 and the requirements of Construction Regulations 16 shall be carried out. Scaffolding shall be erected under the supervision of a competent person. The appropriate training for scaffold users shall be conducted prior to climbing on to the scaffold.

The correct fall protection equipment shall be worn and used whilst climbing up, working from and climbing down scaffolds

All scaffolds must be inspected and certified safe to use by a competent person who has been designated in writing to undertake such duties

A Safe to Use tag must be displayed in a prominent position on the scaffold indicating the following:

- The date it was inspected
- The name of the person who deemed it safe to use
- The Maximum Safe Working Load of the scaffold

4.1.4 Ladders and Ladder Work

Contractors must use ladders that comply with General Safety Regulations 13(a). Contractors involved in OHM work or work undertaken near live apparatus must use the approved Fiberglass ladders as per the eThekweni Electricity Technical Specification for Fiberglass Ladders. All Ladders shall have an identification tag, logged in a register, and inspected monthly and prior to use. Damaged ladders shall be marked as 'Damaged' and removed from the worksite. Contractors must visually inspect the rungs, stiles, rope, fittings, pulleys, connections, rivets and hinges before each use and carry out a detailed inspection every month.

4.2 Public Safety

Legislation requires that employers shall be responsible, as far as reasonably practicable, for safeguarding persons other than those in their employment who may be directly affected by their activities so that they are not exposed to hazards to their health or safety (Section 9 of the OHS Act refers).

EThekweni Municipality Electricity Unit reserves the right to inspect items and/or machinery brought to site by contractors. All machine operators shall be certified competent to operate such machines. Copies of their certificate of competencies shall be available at all times for perusal.

5.2 Hand tools

All hand tools (hammers, chisels, spanners, etc.) must be recorded on a register and inspected by the construction supervisor monthly, as well as by users prior to use. Tools with sharp points in tool boxes must be protected with a cover. All files and similar tools must be fitted with handles. No make shift tools are permissible on site.

5.3 Pneumatic tools

It is illegal for a pneumatic tool to be operated by using a compressed gas cylinder. Pneumatic equipment shall only draw supply from mobile air compressors or from compressed air lines installed within the contractor's premises. All pneumatic tools should be numbered, recorded and inspected at least monthly as well as by users prior to use. Where tools have a spindle drive, then the revolutions per minute speed shall be measured in accordance with the manufacturer specifications. When using compressed air hoses with the interlocking type of connection in the hose, connectors shall be secured with wire clips through holes provided to prevent accidental disconnection.

Compressed air shall not be used for any purpose other than that for which it is provided. Compressed air should not be used to remove dust or debris from clothing or for cleaning purposes. Hoses to be orderly routed and elevated if required in order to prevent tripping hazards.

All pneumatic tools operators shall be certified competent to operate such tool. Copies of certificate of competencies shall be kept.

5.5 Lifting machinery

Before using any lifting machinery, the operator should inspect it daily and where the machine appears faulty, it shall be removed from service immediately. All lifting machines shall be examined and subjected to a performance test by an accredited person/company at intervals not exceeding 12 months, as per DMR 18, or more frequently as desired. All hooks shall be fitted with a safety latch/catch and be in a good operational condition. All lifting machines should be recorded on a register - refer to the requirements of the Driven Machinery Regulations 18.

All lifting machines should be conspicuously and clearly marked with identification particulars and the maximum mass load which it is designed for.

5.5.1 Mobile cranes / Truck Mounted Crane

The mobile crane operator shall be trained for the class of crane they are operating and be in possession of an operators permit. All mobile cranes shall be examined and subjected to a performance test by an accredited person/company at intervals not exceeding 12 months, as per SANS 19 'The Inspection, Testing and examination of Mobile Cranes'. All mobile cranes shall be subjected to an inspection prior to daily use and a record kept of the inspection. Any hydraulic crane leaking fluid must be taken out of service and be repaired prior to further use. This is for safe stable operations and protection of the environment. Outriggers shall be used every time the crane is to be utilised to lift any sort / size load. Mobile crane operators shall ensure that loads are not carried over the heads of any workmen. The rigger will give warning signals. Riggers shall be utilised when lifting loads and shall direct the crane operators with the appropriate signals.