



 Eskom	<b>SHE SPECIFICATION</b> <b>Technical Work</b>	<b>Division/Department/ Section</b>
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Title: **Project:**

**EAL Simulator Building Video  
Management System Installation**

Unique Identifier: **240-73198174**

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## EAL Simulator Building Video Management System Installation

**Project Reference Number:**


Project:

Unique Identifier: **240-73198174**

Project Reference Number:

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Date: 14.07.2022	Date: 14.07.2022.....	Date: 14.07.2022

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## 1. INTRODUCTION

Eskom's responsibility and commitment is to ensure a safe working environment is in line with its Safety, Health, Environmental and Quality Policy, along with legislative obligations.

This SHE specification is Eskom's minimum requirements which are required to be met for the specific project and for the duration of the project period by contractors.

The principal contractor is expected to develop a SHE plan which meets these requirements as well as all the relevant applicable legislation they conform to.

Eskom in no way assumes the principal contractors legal responsibilities. The principal contractor is and remains accountable for the quality and the execution of his/her health and safety programme, for his employees and appointed contractor employees.

This SHE specification reflects minimum requirements and should not be construed as all encompassing.

Note 1: All the requirements listed hereunder are in relation to the contract and project and do not supersede or replace any organizational SHE requirements.

## 2. SUPPORTING CLAUSES

### 2.1 SCOPE

This SHE specification lists the legislative and Eskom requirements and where applicable, any requirements pertaining to Local Authorities / Municipal by-laws / Environmental legislation that must be met by contractors.

#### 2.1.1 Purpose

This document will provide a standardised approach to the compilation of SHE specifications throughout Eskom for projects and or contracts and NEC 3 contracts.

#### 2.1.2 Applicability

This SHE specification is applicable to principal contractors and their appointed contractors who intend in tendering for the project / contract.

### 2.2 NORMATIVE/INFORMATIVE REFERENCES

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs

#### 2.2.1 Classification

- a. **Controlled disclosure:** controlled disclosure to external parties (either enforced by law, or discretionary).

### 2.3 ABBREVIATIONS

Abbreviation	Description
SHE	Safety, Health and Environment
LoGS	Letter of Good Standing

Abbreviation	Description

### 3. DOCUMENT CONTENT

#### 3.1 SCOPE OF WORK

##### 1. Job Scope of Work

#### Video Management System

##### The Contractor:

- Design, supply and install hardware, software and all peripherals as per Eskom standard 240-91190304 Specification for CCTV Surveillance with Intruder Detection.
- Design, supply and Install a Video Wall as per Eskom standard 240-91190304 Specification for CCTV Surveillance with Intruder Detection.
- Data Analytics capability to be incorporated into VMS as per Eskom standard 240-91190304 Specification for CCTV Surveillance with Intruder Detection.
- Shall relocate the existing VMS to the new server room in Eskom college and design to integrate with new VMS.
- The contractor shall test and ensure full compatibility with new and existing VMS and surveillance infrastructure.
- Ensure a Fixed once of Licence costs for VMS and Camera's is included.
- Provide training for super users and operators of the VMS system.
- Shall quote for an additional cloud back up system to enable Eskom to decide on this option. This backup should conform to Eskom's Cyber security requirements (240-55410927).
- The VMS system shall be able to store at least 30 days of footage.
- System shall be enabled to allow for a dial in facility to enable the controllers to access every camera's footage at any point in time.
- System analytics should provide reporting on all incidents/movements at each site on demand on a real time basis
- Shall Supply and install all cabling, including electrical works to ensure a completed and functional VMS system.
- Shall quote for a 3 year replacement warrantee as well as a 3 year maintenance plan.
- Supply and install all required Fire walls and DMZ equipment as per Eskom Specifications.

## **Server Room**

### **The Contractor:**

- Shall Design, build and fit the server room in accordance to EPSUIP-606-253 – Generic Design Specifications for Control Centres. This will include redesign, supplying and installing of the cooling systems, fire suppression and extraction systems for the room
- Shall Design, supply and install a UPS system fit to supply the VMS Hardware, IT equipment(routers, Firewalls, computers and DMZ) and all screens in accordance to Eskom's standards(240- 118870219 & 240-91190304) including the batteries.
- Shall supply and install all cabling to be supplied and fitted from IT cabinets and Telecomms hardware to ensure a complete system is installed and commissioned
- Shall ensure all Electrical works to be designed, supplied and installed by a suitably qualified and accredited contractor.

## **IT**

- Design, supply and install all related IT infrastructure for the proposed OT & IT integration as per the standard VMS architecture.

## **Control Room**

### **The Contractor:**

- Shall design, supply, build and fit the new control room in accordance to EPSUIP-606-253 – Generic Design Specifications for Control Centres and all applicable SANS Standards.
- Shall design, supply and install all furniture and accessories to complete the new control room in accordance to EPSUIP-606-253- Generic Design Specifications for Control Centres.

### **Eskom Telecoms**

- Supply, deliver and install all terminal equipment to ensure complete commissioning of end to end fibre installation, link to microwave towers, GPRS link and satellite links.
- Design, supply and install Eskom Telecoms Equipment to achieve 10MBps bandwidth between the 4((Babelegi Main, Moroka Main, Germiston North & Sandpit Substations) x sites and the Server room.

### **CCTV surveillance system with artificial intelligence capabilities**

Design, supply and install camera Infrastructure at 4(Babelegi Main, Moroka Main, Germiston North & Sandpit Substations) sites as per Eskom standard 240-91190304 Specification for CCTV Surveillance with Intruder Detection.

#### **The Contractor:**

- Shall ensure that the NVR/DVR should be able to store at least 30 days of footage.
- Shall design the system to ensure Data Analytic capabilities are incorporated which includes the following
  - On demand video transmittal to Alpha Control
  - Movement detection
  - Facial recognition
  - Numberplate recognition

- Fire/thermal and smoke detection
- Shall provide training on the design, installation and maintenance of the surveillance system.
- Shall test and ensure full compatibility with new and existing infrastructure.

## **3.2 LEGAL COMPLIANCE**

### **3.2.1 Section 37(2) Legal Agreement**

A section 37(2) agreement must be signed between Eskom and the principal contractor at the time of awarding the contract.

The principal contractor must ensure that a section 37(2) agreement is compiled between the principal contractor and all their appointed contractors for the contract.

The original copy of the section 37(2) agreements must be retained by the contractor and a copy retained by the responsible manager.

A copy all the agreements must form part of the respective contractor's SHE files.

## **4. DOCUMENT CONTENT**

### **4.1.1 SCOPE OF WORK**

The scope of work for this project is provided with this SHE specification, listing relevant project details. The scope of work must be filed in the contractors SHE files.

A copy of the scope of works must be retained by the contractors.

**Note:** The contractor who will be awarded the contract will be known as the "principal contractor" and any contractor appointed by the principal contractor will be known as the "appointed contractor".

## **4.2 LEGAL COMPLIANCE**

### **4.2.1 Section 37(2) Legal Agreement**

A section 37(2) agreement must be signed between Eskom and the principal contractor / Joint Venture leader at the time of awarding the contract.

The principal contractor / Joint Venture leader must ensure that a section 37(2) agreement is compiled between the principal contractor / Joint venture leader and all their appointed contractors for the project / contract.

A copy of the section 37(2) agreement must be retained by the project manager and principal contractor.

A copy all the agreements must form part of the respective contractors SHE file.

### **4.2.2 Hazardous Work by Children (Child Labour)**

The constitution of the Republic of South Africa, in the "Bill of Rights" is clear on the rights of children, especially when it comes to:

1. *being protected from exploitative labour practices;*

2. *not to be required or permitted to perform work or provide services that*
  - i. *are inappropriate for a person of that child's age; or*
  - ii. *place at risk the child's well-being, education, physical or mental health or spiritual, moral or social development.*

and the Basic Conditions of Employment Act, Chapter six Section 43 "Prohibition of employment of children".

Before resorting to the use of child labour, due consideration must be given to the rights of the child in terms of the constitution.

Where work is being performed which is not prohibited in terms of the constitution, then such work must be conducted in terms of the OHS Act "Regulations on Hazardous Work by Children in South Africa" with emphasis on paragraph 2 Purpose and Interpretation.

Eskom condones the use of child labour and therefore all effort must be exercised, and child labour should not be used.

#### **4.2.3 Notification of Construction Work**

Unless otherwise contractually agreed upon, the principal contractor must notify the relevant provincial director of the Department of Labour of the intention of carrying out any construction work as defined in Construction Regulation 3 of the Act.

The notification form of construction work is listed as an annexure to the construction regulations of the OHS Act.

A copy of the notification letter sent to the DoL shall be forwarded to the project manager on the same day as sent to the DoL. A copy of the letter and their approval must be kept in the SHE file. When the DoL provide a letter of approval, a copy of the approval must be sent to the Eskom project manager and a copy filed in the SHE file.

#### **4.2.4 OHS Act**

All contractors shall have an up-to-date copy of the OHS Act and regulations at all work sites which will be available to all employees. (Reference GAR 4).

#### **4.2.5 Legislative Compliance**

The principal contractor and all appointed contractors will comply with all the legislation pertaining to this project being:

- The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights).
- Occupational Health and Safety Act 1993 (Act 85 of 1993) and its Regulations.
- National Environmental Management Act 1998 (Act 107 of 1998).
- Environment Conservation Act 1989 (Act 73 of 1989).
- National Water Act 1998 (Act 36 of 1998).
- Conservation of Agricultural Resources Act 1983 (Act 43 of 1983).
- Civil and Building Work Act.
- National Road Traffic Act 93 of 1996.
- Compensation for Occupational Injuries and Diseases Act.
- Applicable South African National Standards (SANS).
- Applicable international standards.
- Eskom Operating Standard for Low Voltage Reticulation Systems.
- SANS Standards –Contractor shall use the relative standards applicable to the project.
- Eskom standards and procedures relative to low voltage work.



#### **4.2.6 Eskom requirements**

**Note:** All contractors shall, before commencement of work in an allocated Eskom CNC area of responsibility, visit such CNC at least one (1) week prior to entering, advising the CNC supervisor of their intention to perform work in the area.

#### **4.2.7 Appointment of a Principal Contractor**

The principal contractor will be appointed by Eskom or Agent on the awarding of the contract and will be responsible and accountable for all legislative and Eskom requirements for the duration of the contract.

Contractors shall not commence with the project work until such times as he/she has been appointed in writing in terms of OHS Act Construction Regulation 5.1)(k), by Eskom or Agent.

#### **4.2.8 Appointment of sub-contractors**

The principal contractor may appoint contractors to assist in the contract. All appointments shall be done in writing and will form part of the SHE plan that is required to be submitted to Eskom. Adequate training and instruction must be given to the appointees and the principal contractor must ensure that all appointed contractors understand their roles and responsibilities.

The principal contractor shall when selecting contractors to assist on this project shall carry out a selection process, and vet potential contractors. Once the selection process is completed, then such sub-contractors shall be appointed in writing for the relevant period as required.

#### **4.2.9 Construction Professional Registration**

The principal contractor and all his/her appointed contractors shall be registered in their respective levels as professionals in terms of the requirements of the SACPCMP.

The SACPCMP web address is <http://www.sacpcmp.org.za>

SHE professionals (which include Construction Safety Officers) are required to register as professionals with the SACPCMP.

Construction Managers are required to register as a professional with the SACPCMP.

Notwithstanding the provision Government Gazette dated 7 February 2014 regulation 34 (2) advising that the registration of Agents with the SACPCMP has an 18-month delay from 7 February, agents are encouraged to register as a professional.

#### **4.2.10 SHE Policy**

A SHE policy is a statement of intent and a commitment by the organisation's CE and senior management in relation to the relevant SHE roles and responsibilities, the achievement of their strategic objectives, values of integrity, customer satisfaction, excellence, and innovation.

Principal Contractors and all appointed contractors, if already not in place, will be required to compile an organisational SHE policy in line with their SHE responsibilities. The policy must be signed by the organisation's CE or the appointed assistant to the CE Section 16(2). Where possible, the policy must be displayed in a prominent place within in the workplace.

#### **4.2.11 COID**

The principal contractor and all his/her appointed contractors shall be registered with an appropriate employment compensation commissioner and have available a valid letter of good standing from such commissioner. The obligation lies with the contractors to ensure that the LoGS remains valid throughout the contract period. A copy of the LoGS must be filed in all the contract SHE files and as an annexure to the SHE plan.

#### **4.2.12 Costing for SHE within the project**

**Note:** The costing for SHE is required if additional specialised equipment and or training is required for the project. This does not replace the normal SHE requirements pertaining to the organisation in terms of the OHS Act, General Safety Regulations 2 and Section 8 (2)(e).

#### **4.2.13 APPOINTMENTS**

1. The principal contractor and appointed contractors must make the relevant legislative and non-statutory appointments, which will be required to remain valid throughout the life of the project.
2. The responsibilities of the individual appointments made must reflect the requirements as listed in the respective Acts and form a part of the appointment.
3. All appointees shall be suitably trained and found to be competent for the responsibilities assigned.
4. Copies of all the appointments must be kept in the relevant SHE files.
5. The under mentioned appointments are required:
6. Relevant statutory appointments shall be made in accordance with the requirements of the OHS Act which includes the requirement of a competent person being appointed in the relevant roles.

##### **4.2.13.1 Statutory appointments**

4.2.13.1.1. OHS Act, Section 16(2) – Chief Executive Officer (only the details of Chief Executive required).

4.2.13.1.2. OHS Act, Construction Regulation 8(5)- Health and Safety Practitioner

4.2.13.1.3. OHS Act, Section 17 – Health and Safety Representative.

##### **1. Health and Safety Representative**

- One trained Health and Safety Representative for every 20 employees or part thereof.
- To be elected and appointed per work area and discipline and comply with OHS Act Section 17 and 18 and GAR Section 6.

##### **Competencies/Training**

- General Health and Safety Training
- Accredited Health and Safety Representative Training
- Hazard Identification and Risk Assessment Training
- Incident Investigation and Root Cause Analysis Training
- Competencies for Short Term Contractors (working on site for less than 30 days)
- Indicate which competent person will perform these duties:
  - General Health and Safety monitoring
  - Health and Safety Representative duties
  - Hazard Identification and Risk Assessment duties
  - Incident Investigation and root cause analysis duties

OHS Act, Section 19 – Health and Safety Committee Member (if there are 2 or more Health and Safety Representatives then there will be a Health and Safety committee) **and** Chairperson of Health and Safety Committee

##### **2. OHS Act, GSR 3 – First Aiders**

- One first aider trained on Level 2 per team (as per OHS Act or project risk profile of workers.)

##### **Competencies/Training**

- In possession of a valid level 2 first aid certificates issued by any one of the following: The SA Red Cross Society; the St John's Ambulance; the SA First Aid League; or a person or organization approved by the Chief Inspector for this purpose.

- Contractors are required to provide proof that: All First - Aiders are in a possession of a valid level 2 first aid certificate from an accredited first aid training service provider
- Risk specific training is included in the initial training, which is based on the incidents most likely to occur on this project site.
- First - Aiders attend at least 2 hours of supervised practice training per month which shall be based on potential site incident risks

**3. OHS Act, GAR 9 (2) Incident/Accident Investigator**

4. OHS Act, CR 4 (1) Appointment of the Principal Contractor by the Eskom Client/Agent (to be done when contract is awarded)
5. OHS Act, CR 7 (1) Contractor Appointment by the Principal Contractor (If appointing Contractors)
6. OHS Act, CR 8 (1) Construction Manager (appointed by the Contractor OHS Act Section 16(2) appointee)
7. OHS Act, CR 8 (7) Construction Supervisor (appointed by the Contractor OHS Act Section 8(1) appointee)

**NB! It is the duty of the principal contractor to request all the Eskom documents that are related to the project. It is the responsibility of the principal contractor to conform to all the Eskom related documents.**

**Competencies/Training**

- Training in the Construction Regulations
- Emergency preparedness coordination training and experience
- OHS Act and Regulations course (latest version of the Act and regulations)
- Incident Investigation and Root Cause Analysis Training
- Hazard Identification and Risk Assessment Training
- Job Observations Training
- Attended an accredited supervisor's safety course

For existing contracted contractors: For appointees that do not meet the minimum competencies: full compliance to the above competencies would be expected within 6 months after the contract is placed. A weekly status report on meeting 100% compliance shall be submitted to the SHE Manager/Practitioner for tracking.

For new contracts: To meet all requirements prior to commencement of work.

8. OHS Act, CR 8(8) – Assistant Construction Supervisor (appointed by the Contractor OHS Act Section 8(1) appointee).

**Competencies/Training**

- General Health and Safety course
- OHS Act and Regulations course (latest version of the Act and regulations)
- Incident Investigation and Root Cause Analysis
- Hazard Identification and Risk Assessment Training
- Job Observations training
- Attended an accredited supervisor's safety course

9. OHS Act, CR 5 (5 & 6) - Construction Health and Safety Practitioner

- In determining the number of appointed competent Health and Safety practitioners to the number of employees, the nature and scope of work being performed shall be taken into consideration.

**Competencies/Training**

- National Diploma in Safety Management or Environmental Health
- A recognised safety certification (minimum: of 2 weeks training) (e.g. SAMTRAC / Modern SHEQ Management course)
- Registration and accreditation from a recognised Health and safety professional body

- OHS Act and Regulations (latest version of the Act and regulations)
- COID Act (latest version of the Act)
- Incident Investigation and Root Cause Analysis
- Health and Safety Risk Management
- Training in Construction Regulations
- Emergency preparedness coordination training and experience
- Hazard Identification and Risk Assessment Training
- Health, Safety and Environmental Auditing
- Environmental recognised course

The Contractor is to appoint a suitably qualified experienced person to co-ordinate the organisations safety effort on the site.

10. OHS Act, CR 9(1) Person to Compile Risk Assessments
11. OHS Act, CR 13 (1) Person to supervise Excavation Work
12. OHS Act, CR 23(1) (j) Construction Vehicle and Mobile Plant Inspector
13. OHS Act, CR 29 (h) Fire Fighting Equipment Inspector

#### **4.2.13.2 Non statutory appointments**

1. Eskom requirement Emergency Planning Co-coordinator
2. Environmental Officer
3. Eskom requirement Fire Official
4. Section 37(2) agreement between Client/agent and Principal Contractor

#### **4.2.14 CONTRACTOR ORGANISATIONAL STRUCTURE**

##### **4.2.14.1 Principal Contractor Organogram**

1. The principal contractor must provide an organisational organogram related to this contract, listing all the levels of responsibility from the CE down to the supervisors responsible for the project. The diagram must list the relevant positions held, names of appointees and legal appointments.
2. The principal contractor must ensure that all appointed contractors comply with this requirement. The principal contractor is responsible for keeping copies of all of the organograms' as well as submitting them with the SHE plan. All organograms' shall be updated timeously when appointments are changed and filed in the project SHE files.

##### **4.2.14.2 Appointed Contractor/s Organogram**

1. Appointed contractors are required to compile their company organogram for the project, listing the reporting structure from their CE down to their project supervisors. The diagram must list the names, positions held and any appointments made.
2. This diagram must be kept up to date, a copy of which must be given to the principal contractor and a copy filed in the relevant project SHE files.
3. This diagram must be kept up to date and filed in the project SHE files.

## **4.2.15 ROLES AND RESPONSIBILITIES**

### **Commitment**

Visible commitment is essential to providing a safe work environment. Managers, supervisors and employees at all levels must demonstrate their commitment by being proactively involved in the day to day operations, in particular SHE of any project / contract. Legislation requires that each employee must take reasonable care of themselves and their fellow workers, being it management down to the lowest level employee.

### **4.2.15.1 Principal contractors and appointed contractors**

- a) *The Principal Contractor shall ensure that the performance of all specified work is supervised, throughout the contract period, by a sufficient number of competent appointed representatives of the Principal Contractor and/or Contractor, who have experience in the type of work specified.*
- **Note:** No work may commence and or continue without the presence of appointed supervisor during performance of the contracted work.
  - In determining the number of appointed competent supervisors, the nature and scope of work being performed, shall be taken into consideration.
- b) It must also be noted that the required appointed Construction Manager (OHS Act CR 8.1) may not leave the site unless there are sufficient number of appointed competent sub-ordinate supervisors (OHS Act – CR 8.2) on site to assist with supervision.
- c) The Principal contractor's Site Manager/Supervisor shall provide a list of names and contact telephone numbers of all the employees as well as the Contractors employees on site. This list shall be updated as and when new Contractors commence on site.
- d) The Principal Contractor's Site Manager/Supervisor shall keep a record of all employees including the Contractors employees, including date of induction, relevant skills and licenses, and be able to produce this list at the request of the Eskom Project Manager. These records shall be filed in the SHE File.
- e) The Principal Contractor shall ensure that the managers and supervisors under authority give clear and unambiguous instructions for the work at hand to the personnel for whom they are responsible. The instructions shall include, but not necessarily be limited to:
- description of the objective/scope of work
  - sequence of work/method statements
  - hazard identification and risk assessment (prior to commencement of work)
  - Precautionary/preventative measures that are to be taken.
  - Identification of sensitive features that may be impacted upon by the project.
- f) Any person can report unsafe and/or unhealthy practices or which poses a threat to the environment, to the Eskom project manager. The respective principal contractor is to ensure that corrective training to be given to the person/s involved. Record to be kept of the circumstances giving rise to the stoppage and the actions taken and any corrective measures that were implemented.

### **4.2.15.2 Construction Managers**

- Management of construction work on a single site.
- Ensure occupational health and safety compliance.

#### **4.2.15.3 Contractor site supervisor /foreman / clerk of works**

- Responsible for construction activities on the construction site.
- Ensure occupational health and safety compliance on construction site.

#### **4.2.15.4 Employees**

- Employees are responsible for their own health and safety and that of their co-workers in their working area. They must be informed of their responsibilities during induction and awareness sessions some of which are:
  - Familiarising themselves with their workplaces and health and safety procedures.
  - Working in a manner that does not endanger them or cause harm to others.
  - Keeping their work area tidy.
  - Reporting all incidents/accidents and near misses.
  - Protecting fellow workers from injury.
  - Reporting unsafe acts and unsafe conditions.
  - Reporting any situation that may become dangerous.
  - Carrying out lawful orders and obeying health and safety rules.
- Every employee must undergo 3 days Eskom Induction provided by the Client/Agent before commencement of the contracted work. Only once this induction has been received, will each employee receive a site access permit. This induction training will not replace the contractors own compulsory induction training and the site specific induction training. Proof of attendance register of such inductions shall always be made available by the contractor when required by Eskom.
- The induction material shall be reviewed quarterly or when risk assessment is reviewed. An attendance register shall include the date of training and the names and signatures of all trainees. The training register shall be kept on site and be available for inspection at all times.
- It must be highlighted to all employees, that anyone who becomes aware of any person disregarding a safety notice, instruction or regulation shall immediately report this to the person concerned. If the person persists, stop the person from working and report the matter to the Eskom Site/Project Manager and the Principal Contractor Supervisor immediately.
- No person shall damage, alter, remove, render ineffective, or interfere with anything that has been provided for the protection of the site, or for the health and safety of persons.
- No person under the influence of alcohol, drugs or medication (in a state of intoxication) or any other condition that may render him incapable of controlling himself or of other persons under such person's charge shall be allowed to enter the site.
- All safety and warning signs must be obeyed at all times.
- Entering or leaving the Site may only be done via the official designated walkways, no shortcuts may be taken. Follow designated walkways to and from the work place must be followed. All must walk, do not run, and be alert for motor vehicle traffic and mobile equipment.
- All employees must adhere to the SHE and other site specific rules.
- If any of the Principal Contractor's employees or the Contractor employees has transgressed any of the requirements of the SHE Specification, SHE plan or site rules, then the employee will be removed from site and the offender's site access revoked. The Principal Contractor must follow a process of disciplinary action which shall include re-training/inducting the employee (at the cost of the Principal Contractor) and provide proof thereof to the Eskom site/Project Manager and upon the satisfaction of the Eskom Site/Project Manager will the employee be allowed back on site.
- Employee Identification- Contractors shall ensure that their employees bear the following unique identification markings:
  - The name of the company on each overalls
  - The company name and / or logo on their hard hats

#### **4.2.15.5 Contractor safety and health officer**

- The appointment of a SHE practitioner is required for the duration of the contracted work or part thereof. Part time appointments will be allowed based on the risk profile and the type of work to be done- this shall be negotiated. The Contractors SHE Practitioner shall assist and support the Contractors Construction Manager to ensure that the contractors SHE responsibilities are fulfilled and compliance to the SHE specifications and SHE plan are met.

#### **4.2.15.6 Contractor environmental control officer**

- The Environmental officer is required for the duration of the contracted work or part thereof. The Environmental Officer shall assist and support the contractor construction manager to ensure that the Environmental responsibilities are fulfilled and compliance to the EMP are met.

### **4.3 HAZARD AND RISK MANAGEMENT**

The intent is Zero Tolerance of unsafe acts and conditions on the construction site through the assessment of risk of each operation executed by the Principal Contractor and the provision of the necessary means to eliminate or minimise the risk to ensure a healthy and safe working environment.

#### **4.3.1 Existing / potential hazards**

- Slips. Trips and Falls
- Fall from heights
- Falling Objects
- Electrical Contact
- Contracting Covid 19

#### **4.3.2 Baseline Risk assessments**

- Attached as an annexure (Project risk analysis from the Client)
- The Contractor to conduct their own baseline risk assessment and submit to the Client for approval before commencement of work.

#### **4.3.3 Continual Risk Assessments**

- To be conducted by the Contractor on site daily before commencement of work.

#### **4.3.4 Safe work procedures / method statements**

The aim of this section is to provide an indication of the activities that require safe work procedures and practices.

- There must be written safe work procedures for all activities. Risk Assessments should refer to the safe work procedures. A safe working procedure should be written when:
- Designing a new job or task;

- Changing a job or task;
- Introducing new equipment or substances; and
- Reviewing a procedure when problems have been identified, e.g. from near miss incidents or an accident/incident investigation.

The safe working procedure should identify:

- The supervisor for the task or job and the employees who will undertake the task;
- The tasks that are to be undertaken that pose risks;
- The equipment and substances that are used in these tasks;
- The control measures that have been built into these tasks.
- Any training or qualification needed to undertake the task;
- The personal protective equipment to be worn;
- Actions to be undertaken to address safety issues that may arise while undertaking the task.

#### **4.3.4.1 INCIDENT MANAGEMENT**

1. All incidents relating to the contract (fatalities, lost time, medical treatment, first aid, vehicle accidents, damage to equipment near misses and environmental issues) shall be reported and investigated in terms of the section 24, 25, GAR 8 and 9 of the OHS Act.
2. Copies of the investigation reports must be filed in the contract SHE file.
3. All incidents of a serious nature shall be reported to the Eskom contract responsible manager as soon as practicably as possible.
4. Ensure that all incidents are reported and investigated timeously by competent incident investigators.

**Note:** Eskom has the right to be involved in any contract related serious incident investigations.

#### **4.3.5 Reporting**

All incidents including near misses occurring at work shall be reported to the relevant site supervisor / manager as soon as practicable but before the end of the shift.

**Note 1:** If it is found that the Principal Contractor or his appointed contractors are hiding/not reporting incidents then steps (which may include disciplinary action) would be taken against the Line Management of the Principal Contractor and appointed contractor in terms of 32-1034 Eskom Procurement and Supply Management Procedure.

All section 24 a shall be reported to the provincial inspector of the DoL and section 25 incidents shall be reported to the chief inspector of the DoL.

#### **4.3.6 Investigation**

1. All incidents related to work being performed for Eskom shall be investigated in terms of the OHS Act sections 24 and 25 and conducted in terms of document 32-95 Eskom Procedure Manual for conducting EH&S Incident Management (full title is listed in Normative References).
2. Investigations shall be conducted by a appointed competent investigator who will compile the appropriate incident report form as listed in the OHS Act Annexure 1.
3. A comprehensive and detailed investigation report shall be submitted to the Eskom project manager within 7 -14 days after the incident.
4. All incidents that were in contravention of any one of Eskom's Life saving rules must be presented by the relevant contractor manager to the project manager and where required to the OU responsible manager.

Eskom must be permitted to participate in investigations if the incident is directly linked to any activity within the scope of the construction project.



#### **4.3.7 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 OU Risk Manager. Close out procedure ideally must be done as soon as practicable. Undue time delays must be avoided.

#### **4.4 PERSONAL HEALTH / HYGIENE FACILITIES**

The aim of this section is to stipulate Eskom's requirements with regards to Occupational health and Hygiene practices expected from the Principal contractors and the Contractors.

##### ***Workers Compensation***

The Principal Contractor must submit proof of registration and **letter of good standing** with the compensation fund or with a licensed compensation insurer for the company and each of the Contractors'. This must remain valid for the duration of the contract. The Letter of Good Standing must reflect the name of the Principal Contractor and/or Contractor Company.

Monitoring of employee exposure to Occupational Health Stressors

The principal contractor shall submit in detail the monitoring programme of all identified OH Stressors on site. As to how employee exposure is going to be monitored and the remedial actions to be taken if the exposure is identified.

Typical examples of Occupational health stressors

- Physical Stressors e.g., Noise,
- Biological Stressors e.g., Bacteria, Viruses
- Psychological stressors e.g., Emotional stress

##### **Protection against dehydration and heat exhaustion**

Contractors shall take into consideration and mitigate against dehydration and exhaustion of Employees.

##### **Protection from wet & cold conditions**

Contractors shall take into consideration and mitigate against inclement and extreme weather conditions.

#### **4.4.1 Inspections**

Eskom reserves the right to conduct unannounced audits on contractors

##### **4.6.1.1. Compliance and Approval of Contractor SHE Plan**

The Contractor's SHE Plan will be audited against a compliance checklist so as to confirm compliance to the requirements in the Eskom SHE specifications. Once there is compliance, contractors SHE plan will be approved by the Client/Agent. The implementation of the SHE Plan shall be assessed by conducting a systems and physical conditions evaluation.

##### **4.6.2.2 Contractor SHE Performance Evaluation**

Eskom shall evaluate contractor SHE performance on an ongoing basis against the Eskom requirements.

##### **4.6.1.3 Internal Audits**

Contractors are required to conduct internal audits on both their employees and their Contractors on the implementation of their SHE Plan on a monthly basis or when the scope of work changes. A summary of the findings and the proposed corrective actions shall be submitted to the Eskom Project/Site Manager on the last day of the audit. The report shall be submitted within one week after completion of the audit.

NB: The Contractor shall arrange for health and safety audits at monthly intervals to be carried out by off-site personnel of the Contractor who are experienced in construction site health and safety auditing. . The results and details of these audits shall be submitted to Eskom.

#### **4.6.1.4 Third Party Legal Compliance Verification Audits**

If Contractors have a third party legal compliance verification audit that is to be conducted on the site activities, then a copy of the summary of the findings and the proposed corrective actions shall be submitted to Eskom Project/Site Manager. The written report shall be submitted within one week after the completion of the audit.

#### **4.6.1.5 SHE Plan Audits**

There will be monthly audits conducted by Eskom on the principal contractor/s and/or Contractors. These audits shall be attended by the contractor's site manager or the representative.

#### **4.4.2 Ablution facilities**

- Ablution facilities to be provided to the project as per the regulation i.e. 1:30 adults per 1 ablution facilities.
- All required sanitary requirements to be provided and made available to all the workers.
- Where Principal Contractors and Contractors do not have EAP service providers, then Eskom's EAP service provider is available to provide assistance. All costs are to be borne by the Principal Contractor. Details are: ICAS – Tel. No.: 0800 611 059.

#### **Welfare**

The following welfare facilities must be provided for in a clean and suitable condition, unless agreement with the Client/Agent's representative has been confirmed regarding the use of existing facilities:

- Waste management
- Sanitary facilities.
- Eating areas.
- Or any other as required by the area.
- Water for drinking/consumption purposes shall be drawn only from taps in messing areas and ablution blocks and at points on Site marked "drinking water".
- No equipment or system shall be connected onto the drinking water system without prior approval of the Client/Agent's representative.
- The Contractor will be required to provide their own accommodation for the workers.

#### **4.4.3 Camp and office welfare**

- No site establishment is required during this project.

#### **4.4.4 OCCUPATIONAL HEALTH, HYGIENE AND REHABILITATION,**

All contractors are required to develop an Occupational Health, Hygiene and Rehabilitation program. The program is intended to ensure that the risks to health are identified and controlled.

#### **4.4.5 Medical Surveillance Programme**

**Note:** Eskom will only accept medical surveillances conducted by an Occupational Health Practitioner who holds a qualification in occupational health.

- The Principal Contractor must ensure that the employees and Contractor employees shall be registered on a medical surveillance programme and shall be in possession of a **valid medical health certificate**. The certificate of fitness must be relevant to the type of work (risk based) that the employee will be conducting. All the employees shall have man job specification on commencement of works on site which will address their specific tasks as designated. All climbers are subjected to a psychological assessment by a qualified medical and or approved assessor.
- The Principal Contractor must ensure that the employees and Contractor employees who will be on site for longer than three days have undergone pre-placement medical examination before starting work on site. An exit medical examination must be done by all employees before leaving site permanently.
- The certificate shall be issued before commencement of work and shall be presented at induction. If the Principal Contractor does not provide proof of valid certificates of fitness for the employees and Contractor employees, then Eskom will not give those employees site access.
- The certificate shall be renewed annually (for employees who are not office bound including drivers) and once every 3 years (for employees that are office bound) (until completion of the project) at which stage an exit medical examination shall be conducted, unless otherwise advised by the Occupational Health Practitioner.
- The principal contractor shall provide a documented process for managing those employees who are issued with a conditional certificate of fitness.
- In instances where sick leave is taken for a period of one week or more, the contractor shall institute an arrangement that employees need to sign a declaration indicating that they did not suffer any illness or injuries which occurred in the period of absence, which may affect the ability to work on site

**Note:** Eskom will only accept medical surveillances conducted by an Occupational Health Practitioner who holds a qualification in occupational health.

#### **4.4.6 Health and wellness HIV / Aids**

- An HIV/AIDS Awareness programme will be implemented by the Employer. This will include voluntary counselling and testing (VCT) of individuals prior to initial commencement of work at the site, HIV/AIDS awareness training and access to ongoing support for affected individuals. The Contractor shall ensure that their employees and their Contractor employees are aware of this requirement.

#### **4.4.7 Covid 19 ( Corona Virus)**

- The client shall issue the appointed principal contractor a permit to perform essential work during the COVID-19 outbreak.
- The appointed principal contractor shall also be obligated to register its business as essential service provider on the Government website, [https://www.bizportal.gov.za/essential\\_service.aspx](https://www.bizportal.gov.za/essential_service.aspx)
- The principal contractor shall issue its employees with a permit to perform essential work during the COVID-19 lock-down period
- If COVID-19 infection is suspected or detected on site, the employee will immediately be moved to a designated quarantine area and equipped with a mask and gloves before safely being moved off-site for medical treatment. The process shall be managed by the site Health and Safety representative.

- If an employee is suspected of having COVID- 19, his/her Health Practitioner must arrange testing for SARS-COV-2.
- The rest of the team on site must be examined.
- Tools of the suspected individual must be quarantined and the tools/materials/equipment of other team members must be deep cleaned.
- For any further advice, the National Institute of Communicable Diseases (NICD) can be contacted on 0800 029 999 or WhatsApp: 0600 123 456
- When employee tests positive the contractor clear communication to employee who is ill on leave. Compensation fund must be in place.
- Clear communication to all other team members.
- Immediately identify the area where the employee was working, and deep clean on applicable equipment. Perform the necessary test on all team members and advise the team to self-isolate. For contact, tracing the Department of Health and/or the NICD must be contacted.
- Check temperature records to see if there was any red flags in the temperature measurements.
- Conducted high-risk employee screening via telephone.

The Principal Contractor to produce

- a) a comprehensive risk and mitigation plan to mitigate against the possible spread of the COVID-19 virus on the site.
- b) a site access plan to mitigate against the possible spread of the COVID-19 virus on the site.

Principal Contractors appoints a suitably qualified Health & Safety Officer on a full time or part time basis depending on the size and duration of the project, the degree of danger likely to be encountered or the accumulation of hazards and risks on site. The Principal Contractor's Health & Safety Officer shall be the responsible person for the management of COVID-19 risks.

Contractor employees are to ensure that they abide by the Department of Transport regulations affecting public transport. It is recommended that all residents using public transport to and from work must cover their mouth with a face mask, which could be a cloth and/or they may use any applicable mask if provided by the contractor. It is usually the norm that the contractor picks up employees at certain locations and collectively drive them to work. The predominant mode of transport is a bakkie which in most cases is double cab and/or open top cab. It shall be noted that open top cabs are not allowed to transport any of the contractor employees. Where a double cab is used only two employees are permitted i.e. the driver and a passenger at the back, both of which shall be wearing protective clothing i.e. mask etc.

Ensure a distance of 2 meters is maintained between workers during lunch breaks.

Frequently clean any high-touch areas such as bathroom handles, taps, toilet handles, chairs and coffee stations. Clear warning signs must be displayed on all access points on site. Where possible the language used should be English or the most spoken language by the site workers.

Security guards shall be provided with gloves and face masks. Manage access controls by regularly sanitizing entry points (door handles)

#### **4.4.8 EAP**

- Principal Contractor shall submit details of their Employee Health and Wellness Programme as part of their Health and Safety Plan which should include a Medical Surveillance Program and an Employee Assistance Program as detailed below.

### **4.5 ENVIRONMENTAL MANAGEMENT**

**Note 1:** In the event of any perceived conflict between the “environmental laws” and the contract documents, the Contractor shall, prior to commencing the work, refer such conflict to the Project Management Team for clarification.

**Note 2:** Environmental protection shall include, but not be limited to, noise pollution, gaseous emissions, noxious and/or offensive odours, liquid waste collection and solid waste separation and collection.

NB: Refer to the Eskom EMP.

#### **4.5.1 Duty of care**

#### **4.5.2 Spillages of chemical substances**

#### **4.5.3 Fire hazard**

#### **4.5.4 Dust and noise**

#### **4.5.5 Environmental incidents**

#### **4.5.6 Herbicide application**

#### **4.5.7 Waste management**

#### **4.5.8 Water Environments**

#### **4.5.9 Existing environment**

#### **4.5.10 Environmental sign off**

### **4.6 EMERGENCY MANAGEMENT**

1. The art of emergency preparedness and response is to minimise the effects of any emergency and to restore normal activities as soon as practical.
2. If using an Eskom site, then the contractors emergency plan must compliment the Eskom sites, emergency plan.
3. The Principal Contractor, together with his appointed contractors, will develop their own emergency response plan for both their worksites and offices. Where any office and or site is located within any Local Authorities area, then the plans must include their involvement.

#### **4.6.1 Emergency preparedness**

- Using the Eskom site specific emergency plan, the Principal Contractor, together with the Contractors, will develop their own emergency response plan (as a guideline) for both site and offices and submit this plan to the Eskom Project Manager for approval.
- It may be decided that one site specific emergency response plan be used for all contractors. He will ensure that the employees and the Contractor employees are trained on this plan. The plan shall be in line with the risk profile of the work to be undertaken.
- Periodic emergency drills will be undertaken by Eskom; however, the principal contractor must initiate own emergency drills with permission from the Eskom project manager. This must be recorded and provided on request.

#### **4.6.2 Site Plans**

- **N/A**

#### **4.7 FIRE RISK MANAGEMENT**

Contractors shall ensure that staff are educated in fire prevention and will be held responsible to avoid the risk of fire. Ideally, all employees should receive basic training in fire prevention and use of fire equipment.

##### **4.7.1 Building fire safety plans**

Contractors must develop a fire safety procedure for the specific construction site prior to commencing work. The procedure must take into consideration the size of the site, type of work being done (e.g. cutting, welding, grinding, etc.) and amount of combustible materials. It must be developed in accordance with the hot work permit of the Eskom Plant Safety Regulations, Eskom Fire Risk Management requirements and all other applicable Regulations. All workers entering and working in the construction site need to be trained in fire safety and any duties they are required to perform. Pre-existing fire systems in buildings shall be maintained during construction whenever possible. Any changes must be approved by the Client/Agent.

The fire safety plan shall include:

- a) The designation and organization of site personnel to carry out fire safety duties, including fire watch service if applicable.
- b) The emergency procedures to be used in the case of fire, including.
  - Sounding the fire alarm.
  - Notifying the fire department
  - Instructing site personnel
  - Firefighting procedures
  - And integrating with existing emergency procedures.
- c) The control of fire hazards in and around the building.
- c) Maintenance of firefighting facilities.

##### **Alternate Procedures**

When required by the Client/Agent, contractors will develop alternate procedures to follow during a fire alarm shutdown.

##### **Eskom Fire Safety Guidelines**

###### **a) Fire Alarms**

Fire systems must never be removed from service in an occupied building unless a trained and qualified person is standing at the fire alarm panel capable of reinitiating the system and in communication with persons performing the work; or alternate procedures are taken to ensure that all persons in the building can be informed promptly should a fire occur, and the Fire Department including Eskom Security is notified.

###### **b) Fire Watch**

Except where the building is provided with a fire alarm system or similar equipment acceptable to the Manager, Occupational Health and Safety, fire watch patrols with tours at intervals of not more than one hour apart shall be provided while the fire alarm system is not in operation.

v) Fire Watch: fire watch (with tours at intervals of not more than one hour apart) shall be provided when a portion of a building is occupied while construction operations are taking place with provision for the fire watch to sound the alarm, notify the Fire Department and Eskom Security. (Except where the building and construction sites are provided with a Fire Alarm System or similar equipment acceptable to the Manager of Occupational Health and Safety).

vi) Smoking Restrictions: Smoking is not permitted indoors, at entrances to buildings or near air intake systems as per Eskom Policy and legislation requirements.

#### **4.7.2 Fire equipment maintenance**

- Portable Extinguishers: suitable extinguishers must be available in the construction site and in cases of hot work, be readily available at the location.
- Fire extinguishers register to be developed and kept on site file.
- Inspections of fire extinguishers to be inspected and unique identification to be used to identify them.
- All fire extinguishers shall be:
  - Be clearly labelled
  - Conspicuously numbered
  - Entered in a register
  - Inspected monthly by a competent person
  - Tested and serviced at recommended intervals by an accredited supplier
  - Results entered in the register and signed by competent person.
  - No open or unattended fires are allowed within the Construction site.

#### **4.8 FIRST AID AND EQUIPMENT**

A list of emergency numbers must be posted at phones and in every office. Principal Contractor must ensure that the employees and Contractor employees are familiar with the emergency numbers and also are provided with stickers, with the emergency numbers printed on, to place inside their hardhats.

**NB: Contractor shall prepare and submit Method Statement detailing evacuation procedures for the approval of the Project Manager. The procedures shall detail the nature of the emergencies contemplated, the training of staff forming rescue teams, their numbers, availability (at least one team shall be available for each shift), any delegation of responsibility, liaison with the Emergency services, the Project Manager and the Supervisor, the equipment needed, actual methods of evacuation including transport methods, medical facilities to be used, communications systems to be used and any other matter that the Contractor considers relevant to the subject of emergency evacuation.**

- The Distributions Division has established a contract with Euro Assistance for all employees and its contractor employees for emergency medical assistance incurred whilst on duty anywhere in South Africa. The telephone number is 0861 2ESKOM or 0861 237566.
- Contractors shall have one first aid box for the first 5 persons and thereafter one for every 50 or team of workers on site or part thereof.
- More first aid boxes shall be provided if the risks, distance between work teams or workplace requirements require it (it should be available and accessible for the treatment of injured persons at that workplace).
- Minimum contents of a first aid box:

In the case of shops and offices, the quantities stated under items 1, 8, 9, 10, 14, 15, 17 and 18 may be reduced by half.

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.

- A prominent notice or sign in a conspicuous place at a workplace (SABS 1186 approved signs to indicate location of first aid boxes), indicating where the first aid box or boxes are kept as well as the name and contact details of the First Aider of such first aid box or boxes.
- The Principal Contractor and Contractor shall ensure that alternative arrangements shall be made for possible incidents occurring after normal working hours.
- Where services are not available from the medical centre or where there is no medical centre, the Principal Contractor shall make alternative arrangements for any medical assistance. Proof of this must be made available in the Principal contractors SHE Plan.
- All the first aid boxes shall be compliant to the legal requirements, failure to prove this could lead to work stoppage.

#### **4.8.1 SHE COMMUNICATION SYSTEMS**

Principal Contractor/s and their appointed contractors must develop a communication strategy outlining how they intend to communicate SHE issues to their staff, the mediums they will employ and how they will measure the effectiveness of their SHE communication. Below is a brief on how communication should take place

##### **Occupational Health and Safety Act sections 17,18,19,20**

This provides an outline of the different forums, where Eskom engages with the contractor/s on SHE issues. This also includes the frequency of the different forums as well as the mediums to be employed.

- The Principal Contractor/s and their Contractor/s will have to provide a communication strategy outlining how they intend to communicate SHE issues to their staff, the mediums they will employ and how they will measure the effectiveness of their SHE communication.
- Every meeting conducted on site shall include SHE as a standing agenda point and minutes of these meetings shall be available on site at all times.
- Attendance lists shall be kept for all the health and safety meetings.

Matters that are discussed includes and not limited to:

- Accident / Safety incidents.
- Accident investigations (including near misses) and close out of recommendations.
- Audit findings and close out.
- Hazardous materials / substances.
- Work procedures.
- Protective clothing / equipment.
- Housekeeping.
- Work permits.
- Non-conformances.



- Emergency preparedness.
- Traffic control.
- Medicals.
- Training.
- Forthcoming High hazard activities.
- General SHE issues.
- Matters arising from Contractor's SHE meetings.

The terms of reference of the Monthly SHE Advisory Committee meeting shall be as follows:

- To Co-ordinate the SHE effort of all Contractors on the site with regard to the interaction between the different Contractors.
- To function as a forum where the individual Contractors are able to have input to the improvement of the SHE standards set for the site.
- To co-ordinate the different needs of the different Contractors with regard to SHE training on the site and to further develop the project induction-training programme to suit changing needs.
- To review the incidents on the site and act as an overall steering committee with regard to the performance of the individual SHE committees
  - The following SHE communication arrangements need to be reviewed by the Project Manager.

a) **Project Executive SHE Committee Meeting**

- Objective: this is the overall governing forum for all SHE issues affecting the project. The Committee shall meet to discuss safety issues concerning the current work being performed, training, upcoming work and safety requirements, incidents and lessons learned, specific safety problems, safety performance, action plans and other relevant safety issues.
- **NB! This could be done during the Site Progress Meeting; however more time should be given to ensure that all the issues are discussed and recorded.**
- 
- Chairman: Eskom Project Manager
- 
- Frequency: Monthly or as per legal requirement
- Required Attendees:
- Principal Contractor/s and their Contractor/s:
  - All Project Managers
  - Senior Supervisors
  - Statutory Health and Safety Representative
  - Safety Practitioners
- 
- Eskom:
  - All Project Managers
  - Contract Supervisors
  - Safety practitioners
  - Statutory Health and Safety Representatives
  - Environmental practitioner
  - Occupational Health Nurse (if applicable)
  - Head of Security (if applicable)
- 
- ECO:
  - The ECO could be asked to attend the meeting where there is a need.

- 
- a) **Weekly Meeting**
  - 
  - **For Power Delivery Projects Only: HV Yard/Substation/Line Specific Health and Safety Meeting**
  - 
  - Objective: this is the forum where all SHE issues affecting a particular area in a project are discussed.
  - 
  - Chairman: Eskom Area Project Manager Project Site Manager (Power Delivery Projects) or delegated to Site Supervisor
  - 
  - Frequency: Weekly
  - 
  - Required Attendees:
    - 
    - Principal Contractor/s and their Contractor/s
      - Safety practitioners working in that area
      - Supervisors working in that area
    -
  - Eskom:
    - Supervisors
    - Safety practitioner
- b) **Project SHE Review Meeting**
  - 
  - Objective: this is the forum where all SHE issues affecting the whole project are discussed on a daily basis. Duration is approximately 30 minutes. This meeting occurs before the daily toolbox talks. The matters arising from this meeting should be fed into the daily toolbox talks.
  - 
  - Chairman: Eskom Health and Safety Practitioner
  - 
  - Frequency: Daily or as required
  - 
  - Required Attendees:
    - 
    - Principal Contractor/s and their Contractor/s
      - Safety practitioners
      - Health and Safety Representatives
    -
  - Eskom:
    - Safety practitioners
    - Health and Safety Representatives
    - Environmental practitioner (where applicable)
  -
- c) **Progress Meeting**
  - 
  - Objective: this is the forum where area specific status and the overall project status are discussed. SHE issues are standing agenda points on this forum.
  - 
  - Chairman: Eskom Project/Site Manager
  - 
  - Frequency: Monthly
  - 
  - Required Attendees:
    - 
    - Principal Contractor/s and their Contractor/s
      - Project Managers

- Site managers
- 
- Eskom:
  - Project Managers
  - Contract Managers
  - Health and Safety practitioners

#### **4.8.2 Agenda**

Matters that are discussed include and not limited to:

- Accident / Safety incidents.
- Accident investigations (including near misses) and close out of recommendations.
- Audit findings and close out.
- Hazardous materials / substances.
- Work procedures.
- Protective clothing / equipment.
- Housekeeping.
- Work permits.
- Non-conformances.
- Emergency preparedness.
- Traffic control.
- Medicals.
- Training.
- Forthcoming High hazard activities.
- General SHE issues.
- Matters arising from Contractor's SHE meetings.

##### **4.11.3. Contractor Statutory SHE Meetings**

• Objective: this is a meeting where the Principal Contractor will co-ordinate SHE efforts, establish safety co-operation, ensure project SHE goals are met, and to ensure SHE rules and procedures are understood. The Committee shall meet to discuss SHE issues concerning the current work being performed, training, upcoming work and SHE requirements, incidents and lessons learned specific SHE problems, safety performance, action plans and other relevant SHE issues such as but not limited to:

- Hazardous conditions
- Hazardous materials / substances
- Work procedures
- Protective clothing / equipment
- Housekeeping
- General SHE topics
- Off the job safety
- Chairman: Principal Contractor Construction Manager
- Frequency: Monthly
- Required Attendees:
  - Principal Contractor/s and their Contractor/s
  - 
  - Project Managers
  - Site managers

- Supervisors
- Health and Safety Practitioners
- Health and Safety Representatives
- 
- All other relevant statutory meetings as prescribed in the OHS Act need to be complied with.

- **h) Area Specific Health and Safety Meeting**

Chairman: Eskom Safety Officer (COW)

Frequency: Fortnightly

Attendees: Contractors Safety Officers for contractors working in that area.

#### **4.11.4. Toolbox talks / Daily team talks / pre-job meetings**

- Objective: this is a meeting which is held prior to the commencement of the day's work with all relevant personnel associated with the work task in attendance. The job, relevant procedures, associated hazards, safety measures, i.e., the task risk assessments shall be discussed. Each employee who attends the briefing shall sign the back of that pre-job brief form. Toolbox talks shall be included in the pre-job brief meetings. The toolbox topics will be based on SHE issues pertaining to the construction site. The topic contents shall be in writing.

### **4.9 SHE TRAINING**

#### **4.9.1 Eskom and Organisation Induction training**

The Principal Contractors and Contractors must have the appropriate qualifications, certificates and tickets, and are under competent supervision. Records of all training and qualifications of all contractor employees must be kept. The Contractor shall maintain comprehensive records of all employees under the contractor's control (including all employees of the Contractor) attending induction training. Acknowledgement of receiving and understanding the induction must be signed by all persons receiving the induction respectively.

When there is an amendment to the Acts and/or to the regulations, SHE specification and SHE plan, all affected staff shall undergo the relevant re-training.

##### **General**

The Principal Contractor shall ensure that all the employees and the contractors' employees working on the site are adequately trained in the type of work/tasks to be performed. The training shall extend to include relevant procedures, hazard identification and risk assessment. They shall have the appropriate qualifications, certificates and tickets, and are under competent supervision. Copies of records of appropriate training and qualifications for all employees must be kept and maintained.

When there are changes in any phase of the construction project and/or amendments with regards to Eskom rules and regulations and/or legislative amendments, then the Eskom Project Manager shall review the affected parts/sections of the S.H.E specification and/or provide sufficient S.H.E information to the principal contractor. The principal contractor shall then revise the relevant sections in the S.H.E plan to accommodate the changes so that work can be carried out safely and in minimising negative impacts to the environment. The Eskom project manager then needs to ensure that the revised provisions in the plan are adequate and must approve it.

The Eskom Project Manager may make amendments to the Health and Safety Specification to address Health and Safety matters of concern that arises during the project execution. The contractor shall amend

his Health and Safety Plan accordingly. Time lines to implement changes shall be risk based and shall be agreed upon between the parties in writing.

#### **4.9.2 Site specific induction training**

- **Site Induction**

The Principal Contractor shall ensure that all the employees, agents and contractors have undergone the Project safety induction programme prior to commencing work on site. (Employees shall be inducted in a language that shall be relevant and understood to ensure that critical aspect of the project is clearly known). Re induction will be conducted on persons that have been out of site, as well as following a break away from site.

Appropriate time must be set-aside for training (induction and other) of all employees.

Prior to induction all employees must undergo a pre-employment medical examination AT A RECOGNISED OCCUPATIONAL HEALTH PRACTITIONER and found fit for duty. A copy of the certificate of fitness must be presented for permanent record at the induction centre and kept at site offices for permanent record. All employees and visitors on site shall carry the proof of induction training.

General construction site induction carried out by the Principal Contractor. The Principal Contractor shall ensure that all the employees and Contractor employees undergo general work induction with regard to the approved SHE plan, general hazards prevalent on the construction site, construction risk assessment, rules and regulations, and other related aspects.

#### **4.9.3 Site visitors induction training**

- Visitors to the site shall be required to undergo and comply with Client/Agents site-specific safety induction requirement prior to being allowed access to site.
- All visitors must remain in the care and custody of a person (host) who has been properly inducted. No visitors are permitted to undertake any construction work, of any nature.

#### **4.9.4 General job training**

Job specific induction carried out by the Principal Contractor/Contractor Manager on the site. The Principal Contractor will be required to ensure that before an employee commences work on the project that the supervisor in control with responsibility for the employee has informed the employee of

The scope of authority, any hazards associated with the work to be performed as well as the control measures to be taken. This will include man-task specifications, the discussion of any standard task procedures or hazardous operational procedures to be performed by the employee. The Principal Contractor is to ensure that the supervisor has satisfied himself that the employee understands the hazards associated with any work to be performed by conducting task/job observations.

Proof of job specific induction signed by Inductor and trainee must be submitted to the Safety department before an access permit will be issued.

#### **4.9.5 Construction vehicle safety**

- All motor vehicles operated by Contractors within the area shall, in all respects, comply with the Road Traffic Ordinance and Road Traffic Act. Designated drivers shall be in possession of a driver's licence, valid for the class of vehicle. The driver's license shall be kept by the person so authorised and shall produce such card on request.
- All drivers of construction vehicles and mobile plant to have medical certificates of fitness

Each Project site will have system/ process to manage vehicle access to site. This process/system must be defined here.

- The speed limit within the bounds of the construction site is \_\_\_ km/h. (To be completed by the project team).
- No drivers or operator may talk on cell phones or two way radios whilst driving, unless a hands free kit is used.
- It is the responsibility of the driver to ensure:
- He/she and their passengers wear seat belts whilst the vehicle is in motion.
- Comply with all safety, direction and speed signs.
- Ensure that vehicle loads are properly secured and loaded onto vehicles.
- Ensure that vehicles are not overloaded.
- All requirements with regard to the transportation of tools/equipment/material and persons on the back of construction vehicles must be adhered to:
- If contractors are to be transported in the back of construction vehicles, then those vehicles are to be fitted with canopies that meet the required SANS standards;
- Tools, equipment and material to be secured in order to prevent movement;
- Fixed and firmly secured factory fitted seats with safety belts – adequate for the number of passengers being transported;
- Construction vehicles to be fitted with roll over bars as per SANS standards;
- The driver and all passengers to be seated with seatbelts fastened whilst the vehicle is in motion.
- The Principal Contractor shall ensure that the employees and those of the Contractors do not.
- Ride on back of elevators, cranes or other mobile plant equipment.
- Leave vehicles unattended with the engine running.
- Park vehicles in unauthorised zones/areas.
- Eskom reserves the right to search any vehicle on the premises or when entering or leaving the premises.
- The Contractor shall be solely responsible for the safety and security of any of the vehicles (including private vehicles) on the premises.
- The Contractor shall attach identification markers on all of their vehicles that are permitted to enter the site.
- A current maintenance logbook is required for all cranes and large plant equipment, and shall be available for inspection at any time. The logbook shall be located in the cabin of the crane or plant equipment.
- Principal contractor is to ensure that visibility (e.g.: switching on of lights, reflectors, barricades equipped with lights, etc.) is enhanced on all Construction Vehicles and Mobile plants in order to identify the location of the vehicles or plant.
- The Contractor must maintain vehicles in roadworthy condition and a valid license. These vehicles shall be subject to inspection by the Client/Agent's representative. Vehicles which are not roadworthy will not be allowed onto the site.
- In the event where the principal Contractor and the Contractor do not own the equipment, the principal Contractor is still responsible for ensuring all conditions are complied with by all of the Contractors or hire companies.
- Drivers/operators shall be responsible for the travel-worthiness of all loads conveyed by them. Precautions shall be taken to lash all loads properly. Loads projecting from vehicles shall be securely loaded and in

daytime a red flag and during darkness a red light or red reflective material shall be attached to the extreme end of such projecting material.

- All servicing and repairs must be carried out by the Contractor in a designated area.
- All waste from servicing must be disposed of in accordance with the environmental legislation.
- Every mobile machine whose vision is impaired when reversing must have a siren/shooter, which sounds, when the machine is reversing. This includes trucks, cranes, loaders, etc.
- Operators have great difficulty in seeing light vehicles behind their machines. Drivers of light vehicles must avoid stopping or parking in the vicinity of machines. At least 30 (thirty) meters must be left clear between such a vehicle and such a machine.

Furthermore, the *Contractor* shall satisfy the *Project Manager* and the *Supervisor* of the following with respect to transport, earthmoving equipment and materials handling equipment:

- All vehicles and equipment shall be maintained in good working order in order to maximise efficiency and minimize pollution;
- All vehicles shall be equipped with an audible reversing warning system;
- All drivers of Transport, Earthmoving and Materials Handling Equipment (TEM) shall be tested for competence before employment on the *works*. Their competence shall also be tested at yearly intervals during the Contract. The pre-employment and yearly competence tests of drivers shall in addition to testing their driving ability, also test their eyesight, including night vision and colour blindness;
- All TEM with moving parts shall have a manual override in the case of a malfunction;
- All TEM and other vehicles shall be equipped with a dry powder fire extinguisher;
- All TEM and other vehicles shall carry an up-to-date test certificate;
- All TEM and other vehicles shall be maintained and serviced in the *Contractor's* workshops; and
- All TEM and other equipment shall only be washed in designated washing areas to minimize water pollution and soil contamination.

**Please Note that No Contractors are to be transported at the Back of an open construction vehicle, unless the above stated requirements (2.16.6) are met**

#### **4.9.6 Organisational transport**

- Transportation of employees to and from site to be done as per Eskom procedure.

#### **4.9.7 Mobile plant equipment, machinery, tools and vehicles**

The aim of this section is to outline the process used by Eskom project management team to ensure that all equipment brought onto site by the Principal Contractor and their Contractors is appropriate to the task being performed and in good condition.

- The Contractor shall ensure that all machinery, tools and equipment are identified, safe to be used and is maintained in a good condition.
- All machines driven by means of belts, gear wheels, chains and couplings shall be adequately guarded. A machine is guarded when persons cannot gain inadvertent access to the moving parts.
- The Principal Contractor shall ensure that all machinery, tools and equipment is listed on an inventory list and handed to security with a copy kept on site.
- All machinery, tools and equipment to be inspected at least monthly or as required by legislation and risk assessments, registers of tools shall be kept on the safety file. The equipment should be numbered or tagged so that it can be properly monitored and inspected.

- All machinery, tools and equipment must have the necessary approved test or calibration documentation where applicable prior to being brought onto the premises and the records shall form part of the SHE plan.
- All fuel driven equipment must be inspected by the Eskom SHE Practitioners prior to mobilizing it onto site.
- All fuel driven equipment must be properly maintained in accordance with the manufacturer's recommendations and legal requirements.
- The Contractor shall supply, at the cost, all items of plant and equipment necessary to perform the work otherwise indicated.
- The Client/Agent reserves the right to inspect items of plant or equipment brought to site by the Contractor for use on this Contract. Should the Client/Agent find that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the Client/Agent shall advise the Principal Contractor in writing and the Principal Contractor shall forthwith remove the item from the site and replace it with a safe and adequate substitute. In such cases, the Principal Contractor shall not be entitled to extra payments or extensions of time in respect of delay caused by the Client's/Agent's instructions.
- The Principal Contractor/Contractor will ensure that he has all the necessary registers to record all tools and equipment.

#### **4.14.3.1. Equipment Compliance Certificates**

- Before equipment is brought on site valid certificates of compliance issued by a competent person shall be presented. The equipment includes but shall not be limited to:
  - Lifting equipment and lifting tackle
  - Power driven machinery
  - Electrical equipment
  - Testing and monitoring equipment

All employees shall be competent when operating or using machines and tools.

- Have a valid certificate.
- Proof of any form of task related training.

## **4.10 HOUSEKEEPING AND ORDER**

### **4.10.1 Inspections**

- The Principal Contractor shall carry out regular safety/housekeeping inspections (at least weekly) to ensure maintenance of satisfactory standards. The Principal Contractor shall document the results of each inspection and shall maintain records for viewing.

### **4.10.2 Stacking & Storage**

- Adequate care must be taken by the Contractor to ensure that storage and stacking is correctly and safely carried out.
- Materials/objects shall not be left unsecured in elevated areas –falling objects may cause serious injuries/fatalities.
- All packaging material including boxes, pallets, crates, etc. to be removed from the work area immediately.
- Worksites



- On completion of the work, the contractor is responsible for clearing the work area of all materials, scrap, temporary buildings and building bases to the satisfaction of the Client/Agent.

In cases where an inadequate standard of housekeeping has developed, compromising safety and cleanliness, anyone has the responsibility to bring it to the attention of the Eskom Project/Site Manager.

#### **4.10.3 Demarcation**

- The Principal Contractor and the Contractor shall maintain a high standard of housekeeping within the site. Prompt disposal of waste materials, scrap and rubbish is essential. Stipulate as to whether waste separation and removal is for the account of the Principal Contractor or for Eskom. Refer to what the requirements are in the EMP.
- Proper demarcation on site should be applied and maintained. Demarcation shall be visible.
- The Eskom Project/Site Manager has the right to instruct the Principal Contractor and the Contractor to cease work until the area has been tidied up and made safe. Neither additional costs nor extension of time to the Contract shall be allowed as a result of such a stoppage. Failure to comply will result in site cleaning by another cleaning contractor company at the cost of the Principal Contractor.

#### **4.11 MATERIAL AND EQUIPMENT**

Eskom Project management shall ensure that all the material required is procured as per the Specification and delivered on time.

Storage of material shall be done by the Contractor and it is their responsibility to ensure that material is secured or protected on site.

#### **4.12 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS**

##### **4.12.1 Issuing / wearing**

In terms of Section 8 of the OHS Act, the duty of the employer is to take steps to eliminate or mitigate (hierarchy of control measures) any hazard or potential hazard to the safety or health of employees before resorting to PPE.

Principal contractor's employees and the Contractor employees at the construction site, including visitors, shall use the following SANS or the relevant internationally recognised authority approved risk based PPE at all times, as a minimum:

- Head protection (Hard hat).
- Steel toe capped safety boots.
- Eye protection. Wearing of impact Safety Spectacles with side shields. Prescription glasses must comply with the same standard or cover impact safety spectacles must be worn over them.
- Long sleeved and long pants protective clothing.
- High visibility vests.
- Refer to General Safety Regulation 2 of the OHS Act.

##### **Issue, Replacement and Control of PPE**

- The Principal contractor must provide a detailed programme on the issuing, maintenance and replacement of PPE for all the employees and Contractors on site.
-

- The Principal contractor is required to keep an updated register of all PPE issued, including that of the employees and Contractors.

However, if there are particular activities/areas/risk assessments that require a specific type of PPE, then that specific PPE requirement must be adhered to (e.g.: for dusty environments – eye goggles; for welding – welding helmet; drilling- metatarsal steel caps etc.).

Strict non-compliance measures must be administered to any employee not complying with the use of PPE and shall be removed from the Site.

Suitable eye protection shall be worn by all persons including visitors, to any designated eye protection area.

Ear protection shall be worn in any designated noise zone.

Suitable respirators shall be provided where gas and/or dust could pose a hazard

#### **4.12.2 Inspections**

A competent PPE inspector to be appointed in writing and all inspection records to be kept on the file.

#### **4.12.3 Training**

The Contractor shall ensure that the employees understand why the personal protective equipment is necessary and that they use them correctly.

All employees to be trained on the use and maintenance of PPE and attendance register to be signed as proof of training.

All users of PPE shall be trained, assessed, and declared competent for the specific personal protective equipment.

Documented training records for all training shall be maintained.

### **4.13 WORKPLACE SIGNAGE AND COLOUR CODING**

#### **4.13.1 Signs**

All equipment, brought onto the construction site, (including motorised equipment, e.g. bobcat) that requires PPE to be worn during operation, must have the relevant PPE mandatory sign/s attached.

Symbolic signs (To comply with SANS 1186) indicating the type and use of PPE will be placed at all entry points to the construction site.

#### **4.13.2 SAFE WORK PROCEDURES AND PRACTICES / SAFE OPERATING**

##### **4.13.3 Written Safe work procedures / method statements**

The aim of this section is to provide an indication of the activities that require safe work procedures and practices.

- There must be written safe work procedures for all activities. Risk Assessments should refer to the safe work procedures. A safe working procedure should be written when:
  - Designing a new job or task;
  - Changing a job or task;
  - Introducing new equipment or substances; and
  - Reviewing a procedure when problems have been identified, e.g. from near miss incidents or an accident/incident investigation.

The safe working procedure should identify:

- The supervisor for the task or job and the employees who will undertake the task;
- The tasks that are to be undertaken that pose risks;
- The equipment and substances that are used in these tasks;
- The control measures that have been built into these tasks;
- Any training or qualification needed to undertake the task;
- The personal protective equipment to be worn;
- Actions to be undertaken to address safety issues that may arise while undertaking the task.

## **4.14 DISCIPLINARY PROCESS**

### **4.14.1 Organisational process**

The principal contractor is required to implement a disciplinary process within his/her organisation to enforce conformance to requirements, similarly, appointed contractors must do the same.

### **4.14.2 Eskom Life saving Rules**

#### **Distribution Division Life Saving Rules**

There are 5 Life Saving Rules that have been identified for the Distribution Division. Failure to adhere to these rules by any Eskom Distributions Division employee or employee of a Principal Contractor or Contractor will be considered a serious transgression. These rules are being implemented to prevent serious injury or death of any Eskom employee, labour broker, contractor employees, stakeholders or the public working/visiting any area within the Distribution Division. The rules are:

<b>RULE</b>	<b>DESCRIPTION OF RULE</b>
Rule 1	<b>Open, Isolate, Test, Earth, Bond and/or Insulate before Touch</b> No person may work on any electrical network unless: <ul style="list-style-type: none"><li>• He / she is trained and authorised as competent for the task to be done.</li><li>• A pre-task risk assessment to identify all risks and hazards has been conducted prior to any work commencing.</li><li>• An equipotential zone is created for each worker on the job site by earthing, bonding and/or insulating according to approved procedures.</li><li>• All conducting material is connected together, all staff on site wears electrical safety shoes and insulating techniques are applied according to standards.</li><li>• The authorised person (team leader) has certified and shown all team members that the apparatus is safe to work on.</li></ul>
Rule 2	<b>Hook up at heights</b> Any person who performs work higher than two metres above ground level shall be attached to an anchor point at all times, or as identified during the risk assessment.
Rule 3	<b>Buckle up</b> Seatbelts shall be used at all times while driving. <b>No person may drive any vehicle on Eskom business and/or on Eskom premises:</b> <ul style="list-style-type: none"><li>• Unless the driver and all passengers are wearing seat belts</li></ul>
Rule 4	<b>Be Sober</b> No person is allowed to be under the influence of intoxicating liquor or drugs while on duty.

Rule 5	<b>Ensure that you have a Permit to Work</b> No person shall work without the required Permit to Work (PTW), which is governed by Plant Safety Regulations, Operating Regulations for High Voltage Systems (ORHVS), etc. No plant is to be returned to service without the cancellation of all permits on the plant in accordance with procedure.
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#### **4.14.2.1 Non-Conformance and Compliance**

As legislation forms part of any country's legal system, the Client/Agent requires all of its Contractors to comply with legislation as part of the contract. All expenses to the Contractor, which result from compliance with this legislation as well as special requirements specific to the site, will be for the Contractors account.

Should the Principal Contractor appoint a Contractor, the Principal Contractor would then have the same role and responsibility in relation to the Contractors, in a similar way as the Client has in relation to the Principal Contractor.

#### **4.14.3 Non conformances**

The Client/Agent's representative reserves the right to stop work and issue a non-conformance report whenever safety, health or environmental violations are observed for Principal Contractors and/or their Contractors. Expenses incurred as a result of such work stoppage and standing time shall be for the Principal Contractors account. Any non-conformances/findings/observations found in these audits/inspections on Contractors shall be raised and discussed with the relevant Principal Contractor (with whom the Contractor is contracted with).

The requirements within this specification should not be considered to be exhaustive and the Client/Agent reserves the right to add, delete or modify conditions where it is considered to be appropriate.

No claim will be accepted as a result of any costs or delays being incurred due to the Principal Contractor or the Contractors not complying with legislation, this SHE specification or the contractor's SHE plan approved by the Client/Agent.

#### **4.15 SUBSTANCE ABUSE**

The Contractor to develop their own substance abuse management programme and submit to the client for approval. The procedure shall be aligned with the Eskom **Substance Abuse procedure 32-37**.

#### **4.16 TOOLS, AND EQUIPMENT**

The aim of this section is to outline the process used by Eskom project management team to ensure that all equipment brought onto site by the Principal Contractor and their Contractors is appropriate to the task being performed and in good condition.

- The Contractor shall ensure that all machinery, tools and equipment are identified, safe to be used and is maintained in a good condition.

- All machines driven by means of belts, gear wheels, chains and couplings shall be adequately guarded. A machine is guarded when persons cannot gain inadvertent access to the moving parts.
- The Principal Contractor shall ensure that all machinery, tools and equipment is listed on an inventory list and handed to security with a copy kept on site.
- All machinery, tools and equipment to be inspected at least monthly or as required by legislation and risk assessments, registers of tools shall be kept on the safety file. The equipment should be numbered or tagged so that it can be properly monitored and inspected.
- All machinery, tools and equipment must have the necessary approved test or calibration documentation where applicable prior to being brought onto the premises and the records shall form part of the SHE plan.
- All fuel driven equipment must be inspected by the Eskom SHE Practitioners prior to mobilizing it onto site.
- All fuel driven equipment must be properly maintained in accordance with the manufacturer's recommendations and legal requirements.
- The Contractor shall supply, at the cost, all items of plant and equipment necessary to perform the work otherwise indicated.
- The Client/Agent reserves the right to inspect items of plant or equipment brought to site by the Contractor for use on this Contract. Should the Client/Agent find that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the Client/Agent shall advise the Principal Contractor in writing and the Principal Contractor shall forthwith remove the item from the site and replace it with a safe and adequate substitute. In such cases, the Principal Contractor shall not be entitled to extra payments or extensions of time in respect of delay caused by the Client's/Agent's instructions.
- The Principal Contractor/Contractor will ensure that he has all the necessary registers to record all tools and equipment.
- **Equipment Compliance Certificates**
  - Before equipment is brought on site valid certificates of compliance issued by a competent person shall be presented. The equipment includes but shall not be limited to:
    - Lifting equipment and lifting tackle
    - Power driven machinery
    - Electrical equipment
    - Testing and monitoring equipment
- All employees shall be competent when operating or using machines and tools.
  - Have a valid certificate.
  - Proof of any form of task related training.

#### **4.16 Construction vehicle safety**

1. It is the responsibility of the driver to ensure:
  - a. Their passengers wear seat belts whilst the vehicle is in motion.
  - b. Comply with all traffic road rules, safety, direction and speed signs.
  - c. Ensure that vehicle loads are properly secured prior to moving off.
  - d. Ensure that vehicles are not overloaded.
2. No drivers or operators may text, talk on cell phones or two way radios whilst driving, unless a hands free kit is used.
3. All drivers of construction vehicles are to have valid medical fitness certificates.
4. Each Project site that is enclosed by demarcation will have system/ process to manage vehicle access to site.
5. Contractor must maintain their vehicles in a roadworthy condition and a vehicle license must be valid at all times.
6. Drivers of light vehicles must avoid stopping or parking in the vicinity of machines. At least 30 (thirty) meters must be left clear between such a vehicle and such a machine
7. Contractor vehicles can be subject to inspections by the Client/Agent's representative. Vehicles which are not roadworthy will not be permitted to be used on the project.
8. Drivers/operators shall be responsible for the travel-worthiness of all loads conveyed by them. Precautions shall be taken to secure all loads properly. Loads projecting from vehicles shall be securely loaded and in daytime a red flag and during darkness a red light or red reflective material shall be attached to the extreme end of such projecting material.

#### **4.17 BARRICADING**

Areas where the restriction or prevention of unauthorised persons/members of public/passers-by is required then the barricading requirements shall be adhered to.

Requirements for Barricading (if risk assessments require more stringent mitigation measures then those stringent measures shall apply): -

- Name and contact detail of person and Contractor Company that is responsible for the barricading shall be posted on the actual barricading.
- All barricading shall be of the rigid type.
- All openings and edges must be barricaded with solid barricading to withstand an impact of at least 100 kg.
- Only solid (scaffolding or stand-alone) barricading with Orange "Snow Netting" will be allowed.
- Balards (containers filled with liquid) can be used as solid barricading (exempted for use inside power plant units).
- Contractors must pre-plan the delivery of floor grating, stair treads, landings and handrails to ensure safe access and protection for persons working on structures.

No danger tapes are allowed for barricading purposes.

The contractors barricading standard must accompany the SHE plan.

#### **4.17.1 Excavations / Trenches**

**N/A**

#### **4.17.2 WORK AT ELEVATED POSITIONS AND ROOF WORK**

Wherever reasonably practicable, preference is given to the performance of work at ground level as opposed to the elevated position. Where work in an elevated position is necessary, preference is given to fall prevention measures such as, but not limited to, effective barricading and the use of work platforms. Persons may only work from a fall risk position if a site-specific fall protection plan is in place and correctly implemented and consists of the following:

1. All appointments for the fall protection plan developer and implementer are in place.
2. Baseline risk assessment, which is specific and incorporates the working at height risk assessment, as well as the site-specific risk assessment, has been completed for the work to be conducted.
3. Safe working procedure/task analysis and work instructions, approved by a competent person, are in place.
4. A fall rescue plan, along with necessary equipment and trained rescuers, is in place.
5. Appropriate training, as determined by the risk assessment, has been provided.
6. Appropriate height safety equipment and personal protective equipment have been issued to the individual.
7. There are equipment inspection procedures and up-to-date inspection records.
8. Individuals are medically fit to work at height, and records of this are kept.
9. A site-specific risk assessment is performed.

While work is in progress, adequate warning signs and/or barricades shall be used in all areas where there is a risk of persons being injured by materials or equipment falling from the work area. Barricades should be continuous and easily visible.

A drop zone shall be established with appropriate warning signs and barricading, warning personnel below of workers above and potential falling objects.

**Every employer shall ensure that work at height is:**

1. properly planned;
2. appropriately supervised; and

3. carried out in a manner that is, as far as is reasonably practicable, safe and that its planning includes the selection of work equipment.

#### **4.17.2 Water Environments**

N/A

#### **4.17.3 Wetlands**

N/A

#### **4.17.3 Ladders (Portable)**

- All ladders used on the site shall be in compliance with the OHS Act and Regulations.
- All Ladders shall have an identification tag, logged in a register, and inspected on a monthly basis and prior to use.
- Damaged ladders shall be marked as “DAMAGED” and removed from the project site.
- Prior to work being performed, a risk assessment must be conducted, and work must be conducted as per General Safety Regulation 6 and 13A and Construction Regulation 8 of the OHS Act.

### **4.18 PLANNED TASK OBSERVATIONS**

**Planned Job Observations to be conducted bi-annually for all people/employees that conduct Critical tasks.**

**Schedule to conduct job observations to be developed and be implemented immediately.**

### **4.19 AUDITING**

#### **4.19.1 Approved and compliance of principal contractors SHE plan**

#### **4.19.2 Third party legal compliance**

If Contractors have a third party legal compliance verification audit that is to be conducted on the site activities, then a copy of the summary of the findings and the proposed corrective actions shall be submitted to Eskom Project/Site Manager. The written report shall be submitted within one week after the completion of the audit.

#### **4.19.3 Eskom SHE audits**

Eskom reserves the right to conduct unannounced audits on contractors



#### 2.38.1 Compliance and Approval of Contractor SHE Plan

The Contractor's SHE Plan will be audited against a compliance checklist so as to confirm compliance to the requirements in the Eskom SHE specifications. Once there is compliance, contractors SHE plan will be approved by the Client/Agent. The implementation of the SHE Plan shall be assessed by conducting a systems and physical conditions evaluation.

#### 2.38.2 Contractor SHE Performance Evaluation

Eskom shall evaluate contractor SHE performance on an ongoing basis against the Eskom requirements.

### 4.19.4 Contractor audits

Eskom shall evaluate contractor SHE performance on an ongoing basis against the Eskom requirements.

### 4.19.5 Inspections

## 4.20 PROJECT SITE RULES

The objective of this section is to define the rules that are over and above the internal regulations and procedures of Eskom and relevant legislation which will ensure zero harm to persons and the environment. These rules will be specific to the project and site.

#### **Personal Protective Equipment (PPE)**

The Contractor shall provide free issue protective clothing and equipment to the staff engaged on the works as well as visitors to the works.

The contractor must provide a detailed programme (PPE Matrix) on the issuing, training, maintenance, and replacement of the PPE.

- The Contractor shall ensure that sufficient quantities of clothing and equipment are available from the starting date and that stocks are maintained throughout the duration of the Contract. The Contractor shall ensure that all employees are made aware of the need to use such clothing and equipment in terms of the Contractor's Health and Safety Policy
- A PPE register shall be kept for audit purpose.
- Risk Assessment shall be conducted to determine the type of PPE to be used for a specific activity.
- **The contractor shall ensure that a specific PPE for a specific activity is available and issued to the employees based on the Risk Assessment conducted**
- The minimum required PPE on any construction site:
  - Hard hat with chin strap
  - High visibility vest
  - Steel toe cap safety boots for ankle support
  - Other risk based PPE to be confirmed by the project team (e.g. eye protection or ear plugs)
- **Smoking**
- Smoking is only permitted at designated areas.
- Provide details on your alcohol & substance abuse programme. Eskom reserves the right to conduct substance abuse testing at any given time on site to all employees. Testing results will be shared with the contractor and submitted to Safety Risk management.

*Formulation of alcohol and substance abuse Policy is advisable, to ensure adherence to all contractors, and each one endorse it with a signature after it has been explained by the policy holder (Principal Contractor)*

- Facilities to consist of a covered area, with bench seating, and provided with:
- Fire Extinguishers.
- Sand Buckets.
- Health warning signs as required by the Tobacco Products Act, as amended.
- **Cellular Phones**
- Do not use Cellular phones in areas where cell phone usage is prohibited including whilst driving.
- **Recognized Walkways**
- When walking through the site or to personal work areas use recognised thoroughfare. Don't take short cuts or walk on uneven ground surfaces.
- **Vehicles and Traffic Rules**

#### **4.20.1 Mobile plant equipment, machinery, tools and vehicles**

The aim of this section is to outline the process used by Eskom project management team to ensure that all equipment brought onto site by the Principal Contractor and their Contractors is appropriate to the task being performed and in good condition.

- The Contractor shall ensure that all machinery, tools and equipment are identified, safe to be used and is maintained in a good condition.
- All machines driven by means of belts, gear wheels, chains and couplings shall be adequately guarded. A machine is guarded when persons cannot gain inadvertent access to the moving parts.
- The Principal Contractor shall ensure that all machinery, tools and equipment is listed on an inventory list and handed to security with a copy kept on site.
- All machinery, tools and equipment to be inspected at least monthly or as required by legislation and risk assessments, registers of tools shall be kept on the safety file. The equipment should be numbered or tagged so that it can be properly monitored and inspected.
- All machinery, tools and equipment must have the necessary approved test or calibration documentation where applicable prior to being brought onto the premises and the records shall form part of the SHE plan.
- All fuel driven equipment must be inspected by the Eskom SHE Practitioners prior to mobilizing it onto site.
- All fuel driven equipment must be properly maintained in accordance with the manufacturer's recommendations and legal requirements.
- The Contractor shall supply, at the cost, all items of plant and equipment necessary to perform the work otherwise indicated.
- The Client/Agent reserves the right to inspect items of plant or equipment brought to site by the Contractor for use on this Contract. Should the Client/Agent find that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the Client/Agent shall advise the Principal Contractor in writing and the Principal Contractor shall forthwith remove the item from the site and replace it with a safe and adequate substitute. In such cases, the Principal Contractor shall not be entitled to extra payments or extensions of time in respect of delay caused by the Client's/Agent's instructions.
- The Principal Contractor/Contractor will ensure that he has all the necessary registers to record all tools and equipment.

##### **4.14.3.2. Equipment Compliance Certificates**

- Before equipment is brought on site valid certificates of compliance issued by a competent person shall be presented. The equipment includes but shall not be limited to:

- Lifting equipment and lifting tackle
- Power driven machinery
- Electrical equipment
- Testing and monitoring equipment

All employees shall be competent when operating or using machines and tools.

- Have a valid certificate.
- Proof of any form of task related training..

#### **4.21 SHE PLANS**

**Note:** The plan does not necessarily have to be split into and filed under each heading, but it would make auditing easier and employees able to reference easier). In compiling the SHE plan, cognisance must be made of the detail listed in the specification and the plan must address as to how the contractor will implement the requirements listed in the specification.

1. A safety and health plan is a documented plan that addresses the hazards identified and includes safe work procedures to mitigate, reduce, or control the hazards identified. It is specific to each construction project undertaken and site where work is done, is compiled by the principal contractor and appointed contractor, and must be approved by the client/agent prior to the commencement of any construction activities on a project.
2. All Principal Contractors must use the applicable SHE information herein to develop a suitable and sufficient SHE plan, submitted with tender documents, which will indicate to the Client/Agent the level of compliance to the SHE requirements. The safety, health and environment plan shall identify each construction activity to be undertaken by the Contractor, the foreseeable internal and external hazards, the specific precautions and controls that shall be necessary to ensure that the works proceed safely and without risks to health or adjacent operations.
3. Upon discussions with the Principal Contractor, a final accepted SHE plan would be signed and approved. The Principal Contractor is thereafter required to do the same when procuring other contractors. The Principal Contractor will not be allowed to commence work on site until the SHE plan has been approved.
4. When a Principal Contractor intends appointing a Contractor, the Principal Contractor shall ensure that the SHE Plan is based on the Eskom SHE Specification that was issued for the project and he shall further more ensure that the activities of the Contractor are included in the SHE Plan to be submitted for approval.
5. The plan shall demonstrate management's commitment to SHE and shall, as a minimum include the following element
6. The Principal Contractor/s and their Contractor/s' SHE Policy.
7. Letter of good standing with a compensation insurer.
8. Proof of Notification of construction work in terms Construction regulation 3
9. The principal contractors organisational structure (Organogram)
10. Indication of Competent supervision on site (CV's to be included).
11. Appointed persons competencies. (E.g. Fall protection planner etc.)
12. Legal appointments

13. Duties and safety responsibilities of all appointed persons on the project.
14. Selection, placement and training procedures, including induction and ongoing training in 'Basic Safe Work' and Occupational Health and Safety training for newly hired or promoted supervisors (Training Matrix)
15. Occupational Health and Safety communications and meetings, including daily safe task instructions and project safety meetings.
16. Safety awareness promotions.
17. Nomination of personnel to carry out safety inspections. The task may be shared with other duties and provided within the resources of individual gangs and may be rotated.
18. Contractor senior management involvement with Company's staff in consultative processes and daily management Safety walkabouts.
19. Occupational Health and Safety Workplace Environment, including provision for monitoring employee exposures to noise, dust, etc or as identified in the risk assessment.
20. Personal protective equipment rules.
21. System of hazard identification and risk control, such as Risk assessments, Risk management plan, Daily Safe Task Instructions and communication.
22. Audits to ensure compliance with safety plans.
23. Daily site safety inspections and audits. The auditing role may be shared with other duties or provided within the resources of individual groups. The role may be rotated.
24. Inspection of plant, tools and equipment prior to introduction to site and regularly thereafter. .
25. Accident / incident reporting, recording, investigation and analysis, which ensure that corrective action, are taken and this action is communicated to report initiators.
26. Medical and first aid arrangements.
27. Medical surveillance programme
28. Evacuation and emergency planning
29. Rehabilitation procedures that encourage an early return to work.
30. Substance abuse programme.
31. Record keeping, including details of what is kept and for how long
32. Monitoring mechanisms.
33. Personal Protective equipment arrangements.
34. Site meetings arrangements.
35. Audits arrangements.
36. Maintenance, inspection and testing arrangements of machinery equipment, construction vehicles and substances.
37. Workers welfare facilities.
38. Induction and toolbox talk's arrangements.
39. Training arrangements.
40. Performance review and improvements on the project.

41. Rules and regulations including safety procedures the Contractor has in place for recurring work activities.
42. Past health and safety performance statistics of the company (at least two years)
43. Audits to ensure safety compliance with safety plan
44. Working hours- compliance with Labour Relations / Basic Conditions of Employment act.
45. Compliance to operating regulation procedure for HV-Yards (ORHVS)
46. Applicable standards, legislation and guidelines to be adopted
47. Specific procedures, methods and work instructions to be applied
48. Job observations
49. Work station sheds, site office establishment plan
50. Unsafe acts and conditions reporting procedure
51. Transport safety
52. Occupational health and hygiene arrangements including but not limited to: respiratory and hearing protection, alcohol and drug policies, health assessments, smoking, and first aid
53. Management of Contractors – Client/Agent requires the same from Contractors as it does from contractors
54. Training and competency re SHE
55. OHS records and registers
56. References and Guidelines
57. The SHE plan shall be submitted to Client/Agent for review and approval and once accepted shall not be amended without prior consultation and acceptance by Client/Agent

#### **4.22 RECORD KEEPING**

- All documents used on the projects should be recorded.
- Record keeping to be done as per Eskom standards and ISO 9001.
- All obsolete documents to be kept out of the living SHE file.
- Register for all documents to be kept.

#### **4.23 SHE FILES**

1. A SHE file means a file or other record in permanent form, containing the information about the safety and health management system during construction and all information relating to the post-construction phase after handover to the client, so that the client can maintain the works in a healthy and safe way.
2. The Contractor must have a SHE file in which records of the specification and the SHE plan are kept. All information required in the specification and plan, for the duration of the Principal Contractor and Contractors contract, is to be recorded in the file.
3. The SHE file that will be maintained will be per construction site.
4. The Principal Contractor must also record on the file:
5. Information about removal or dismantling of installed plant and equipment

6. Hands information about equipment needing cleaning and maintenance, for future purposes
7. Nature, location and markings of services
8. As-built drawings
9. The file must be kept on site and must be available on request for audit and inspection purposes.
10. The SHE file at the end of the Principal Contractor's contract shall be handed over to the Client/Agent.

#### **4.23.1 PUBLIC SAFETY**

1. 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 has reference).
2. Necessary precautionary and preventive safety measures shall be taken where persons are required to work on or nearby roadways. Consideration shall be given to the wearing of high visibility vests, and protection by red cones or flags during daylight and use of red or amber flashing lamps at night.
3. Work areas must be adequately barricaded so as to preventing unauthorized access.
4. Road traffic warning signs shall be placed well ahead of the work area.

#### **4.23.2 Refusal to work on the grounds of Health and Safety**

#### **4.24 WORK STOPPAGE**

The aim of the section is to outline the conditions under which work will be stopped and the process to be followed to ensure that the worksite is rendered safe. The conditions that lead to work stoppages are based on:

- Management of change – this is when there are changes to the work environment (e.g.: climatic changes) and/construction work (e.g.: modifications to the design), in any phase of the construction project, and/or amendments with regards to Eskom rules and regulations and/or legislative amendments;
- Unsafe acts/behaviours;
- Unsafe conditions;

The process to be followed is:

- The relevant activity must be stopped;

The Eskom site/project manager and/or Principal Contractor and the Contractors shall immediately remove the workforce from the work area and correct the health and safety deficiencies by allowing only the people in the area that are competent to make the area safe.

Principal Contractor and the Contractors shall ensure that no other work is being performed during this time. Should the estimated time from the outset to make the area safe where life threatening/imminent danger situations exist, then the area will be barricaded and a sign placed with the wording "Unsafe Area – Authorized Access Only".

- The Eskom Site/Project Manager shall review the affected parts/sections of the SHE specification with the purpose of providing sufficient SHE information to the principal contractor.

- The principal contractor shall then revise the relevant sections in the SHE plan to accommodate the changes.
- The Eskom Site/project manager must ensure that the revised provisions in the SHE plan are adequate and must approve it before the work activity is commenced.

Before the workforce is allowed back in the area, Principal Contractor and the Contractors shall ensure:

- The area is re-inspected by Contractor Safety Practitioner and supervisor and note corrective actions taken;
- Declare the area safe for work by signing off on the “work stoppage” notice issued by the Eskom Site/Project Manager.

Refer to requirements of Construction Regulation 4(e) of the OHS Act.

#### **4.25 HOURS OF WORK**

All work conducted on site shall fall within the legal requirements in accordance with the Basic Conditions of Employment Act.

Contractors will notify their Eskom Supervisor/s of any work that needs to be performed after hours according to the agreed arrangements. (The application needs to be submitted timeously). Where applicable, the notification should include proof of application, for overtime, to the Department of Labour and /or the letter of approval from Department of Labour.

#### **4.26 SAFETY ACHIEVEMENTS**

#### **4.27 SECURITY**

Principal Contractors shall adhere to the pedestrian and vehicle routings as provided by the Client/Agent's representative to ensure that the correct route along which employees may proceed when coming on or going off shift and they shall inform their employees accordingly.

All security requirements shall be highlighted at the induction given by the Client/Agent.

All Contractors are to strictly adhere to all security requirements on the premises, as laid down by the Client/Agent.

THE PROJECT/SITE SECURITY ARRANGEMENTS ARE: Contractor to specify as per Bill of Quantities

#### **4.28 OMISSIONS FROM SAFETY AND HEALTH REQUIREMENTS SPECIFICATION**

By drawing up the SHE specification Eskom has endeavoured to address the most critical aspects relating to SHE issues in order to assist the contractor in adequately providing for the health and safety of employees on site.

Should Eskom not have addressed all SHE aspects pertaining to the work that is tendered for, the contractor needs to include it in the SHE plan and inform Eskom of such issues when submitting the tender.

#### **4.29 CONTRACT SIGN OFF**

On completion of the project, all appointed contractors shall close out their project documentation and SHE files and forward such to the principal contractor. The principal contractor shall likewise close out his/her project documentation and SHE files and forward such to the project manager.

No project shall be signed off before Business Unit or Department has given assurance that no environmental liabilities exist. The responsible person, project leader or environmental advisor shall carry out a physical inspection before acceptance of work done.

The Contractor shall comply with the provisions of all Acts, regulations, ordinances, by-laws, Standards, Codes, Rules and requirements of public, municipal and other authorities.

The Project Team may, at any time, without notice to the Contractor, examine and investigate the Contractors' compliance with all Applicable Legislation and the environmental management conditions.

At all times during the execution of the Works, the Contractor shall preserve and protect the natural environment in the general area of the site and the external areas that may be affected by his operations