



**HEALTH AND SAFETY (H&S)  
SPECIFICATION FORM**

**Transmission Projects  
Delivery**

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**NOTE TO PRINCIPAL CONTRACTORS AND THEIR SUB-CONTRACTORS**

*These specifications are Eskom's minimum Health & Safety (H&S) requirements, should not be construed as all-encompassing or static in terms of this or other amendments made during the project. The contractor must develop a H&S plan responding to these requirements, as well as other applicable legal and other requirements.*

*The contractor shall comply with relevant legislative requirements as well as recognised code of practice such as:*

- *Occupational Health and Safety Act 85 of 1993*
- *All applicable regulations.*
- *All applicable recognised international and national code of practices (South African National Standards – SANS)*
- *Eskom applicable procedures, standards, work instructions.*

*The Principal Contractor shall not commence work on site until the H&S plan has been approved.*

*TPD in no way assumes the Contractors legal responsibilities. The Contractor is and remains accountable for the adequate execution of his H&S requirements, and that of appointed sub-contractors and suppliers.*

*The Contractor must take into account all information in this specification and ensure that their tenders include adequate resources and competences (see Annexure C) to deal with matters detailed herein.*

*This H&S specification forms an integral part of the contract, and contractors shall make it an integral part of their Contracts with sub-contractors and suppliers.*

*Eskom has endeavoured to address the most critical aspects relating to H&S issues in order to assist the contractor adequately provide for the H&S of employees on site.*

*Where Eskom has not addressed any H&S aspect pertaining to the construction work tendered for, the contractor shall include it in their H&S plan and inform Eskom of such issues when submitting the tender.*

*Where the client has submitted the hardcopies and softcopies to the principal contractor, the hardcopies shall be the documents to take preference over the soft copies.*

*The contractor shall develop the Health & Safety plan as per the client H&S specification.*

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**Eskom TPD Project Team**

***Eskom Project Manager:***

Manages the contract signed with the Principal Contractor and ensures that H&S specifications are developed and issued with tender enquiries, and that the Principal Contractor's H&S plan is approved prior to commencement of work. He must ensure that applicable legal and other requirements are complied with by the Principal Contractor and (if applicable) their contractors.

**A. Masuku**

**Initial and Surname**

**Eskom Construction Agent:**

Where a construction permit is required, the Agent shall act as the representative of the client. The duties of the client shall, as far as is reasonably practical, apply to the Agent.

**V. Mthimunye**

**Initial and Surname**

**Eskom Engineering Manager:**

Ensures that the designer fulfils his professional and legal obligations with respect to the implementation of his design.

**S. Maharaj**

**Initials and Surname**

**Eskom Site Manager:**

Is responsible for the overall management of the project on-site and is accountable to the Project Manager.

**E. Makhada**

**Initials and Surname**

**Eskom Health & Safety Manager:**

Provides assurance, advice, and support to the project in the management of the H&S issues on the project. They will also assist in the development of project's H&S Specifications which will be issued with enquiry documents, and that the Contractors plans are submitted; evaluated and approved. They will be responsible for auditing and ensuring compliance to legal requirements.

**B. Mabena**

**Initials and Surname**

**Designer:**

Is responsible for the overall management of the project design as well as ensuring the management of the compliance of the completed works to the design during and after construction on site.

**C. Thomas**

**Initials and Surname**

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## **1. Introduction**

The aim of the Health & Safety (H&S) specification is to provide Contractor/s and suppliers/national contracts with

- The overarching framework within which the Contractor is required to demonstrate compliance with Eskom's H&S requirements;
- Establish the manner in which the Contractor is to manage H&S risks in the execution of the contract, and
- Establish the manner in which the Client's H&S Agent will interact with the contractor.

This also provides the contractor with awareness of the risks relating to the scope of work, the project site as well as the project specific legal and Eskom requirements that they need to adhere to in order to demonstrate their commitment towards the zero harm of the environment and persons working on site and/or visiting the site.

Eskom strives to exceed the minimum standards prevailing in the construction industry and requires full commitment from all parties to be pro-active in order to achieve best H&S business practice.

TPD shall include the H&S Specification with the tender enquiry documentation to ensure that the tenderer is timeously made aware of:

- Eskom's requirements and information / prevalent hazards that can affect the H&S of persons at work directly or indirectly;
- Activities that may have an impact on the direct and surrounding environment.

The Principal Contractor and their contractors shall develop H&S plan to meet the H&S Specification requirements as well as applicable legislation.

This H&S Specification may not address all hazards associated with any specialised activity or operation. The Principal Contractor and contractors shall be responsible for developing their own H&S plans/procedures/manuals/work instructions to adequately address their specialised activities and scope of operation.

## **2. Supporting Clauses**

### **2.1 Scope**

This H&S specification sets out the minimum legal and organisational requirements for construction work that is specific to the scope of work, site and type of project.

### **2.2 Purpose**

To indicate to contractors the H&S requirements on the project, upon which their planning for the management of H&S will be based on and thus produce their H&S plan.

### **2.3 Applicability**

This specification is applicable to all Principal Contractors, Contractors, Service Providers, Suppliers and all the activities and processes carried out for and on behalf of TPD where construction work is performed. For best practice reasons, where the work scope does not fall within the definition of Construction Regulations 2014 this specification shall also apply as a minimum.

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## **2.4 Effective date**

This specification shall be implemented from date of approval.

## **3. Normative/Informative References**

Parties using this specification shall apply the most recent edition of the documents listed below.

### **3.1 Normative**

- [1] 32-727: Safety, Health, Environment and Quality Policy
- [2] 240-62196227: Life-saving Rules Standard
- [3] 240-62946386 Vehicle & Driver Safety Management Procedure
- [4] 240-114967625: Operating Regulations for High Voltage Systems
- [5] 32-37 Substance Abuse
- [6] 32-124 Eskom Fire Risk Management
- [7] 32-95 Occupational Health and Safety Incident Management Procedure
- [8] 32-93 Eskom Vehicle and Driver Safety Management
- [9] 240-43848327 Employees' right of refusal to work in an unsafe situation
- [10] 32-418: Working from Heights Procedure
- [11] 32-520: Occupational Health & Safety Risk Assessment Procedure
- [12] 32-123: Emergency Planning
- [13] 32-407 Behaviour Safety Observation Procedure
- [14] Occupational Health and Safety Act and Regulations No 85 of 1993
- [15] Construction Regulations of 2014 or latest edition as per government gazette
- [16] 32-726: Requirements for the Eskom Commercial Process
- [17] 39-98: Safe use of Lifting Machines
- [18] 32-524 Manual, Developing a Specification
- [19] 32-1126 Eskom Smoking Policy
- [20] 32-1134 Physical Access Control at Eskom Premises
- [21] 32-1133 Wearing of Ballistic Body Armour by Security Personnel Policy
- [22] Hazardous Biological Agents Regulations 2022
- [23] All relevant South African legislation-national; provincial, municipal by-laws.
- [24] All relevant international/national recognised code of practice (such as South African National Standards – SANS)

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### 3.2 Informative

**Note: The following is a list of documents that can be used as a guide in order to meet legal and Eskom requirements**

- [1] ISO 45001:2018, Occupational Health and Safety Management Systems-Requirements
- [2] ISO 9001:2015 Quality Management Systems- Requirements
- [3] Relevant South African National Standards for the task/Project.

### 4. Definitions

**Agent:** a competent person who acts as a representative for a client.

**Authorised person:** a competent person who has been given permission in writing to perform specific duties and responsibilities in terms of the Operating Regulations for High Voltage Systems.

**Baseline risk assessment:** (32-520) baseline operational risks refer to the H&S risks associated with all standard processes, as well as routine and non-routine activities in the business.

**Client:** any person for whom construction work is being performed.

**Competent Person:** a person who has, in respect of the work or task to be performed, the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and is familiar with the Act and with the applicable regulations made under the Act;

**Construction Manager:** a competent person (as per description above), who has the appropriate certificate of registration with the relevant Statutory body (South African Council for the Project, Construction Management Professions) responsible for the management of the physical construction processes and the co-ordination, administration and management of resources on a construction site.

**Construction site:** a work place where construction work is being performed

**Construction Work:** any work in connection with:

- The construction, erection, alteration, renovation, repair, demolition or dismantling of, or addition to, building or any similar structure;
- The construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system, or the moving of earth, clearing of land, the making of excavation, piling or any similar civil engineering structure or type of work.

**Contractor:** an employer as defined in section 1 of the Construction Regulations who performs construction work and includes principal contractors. In relation to this document, where the word "contractor" is used, it will mean all or some of the following: principal contractors, appointed contractors, suppliers, vendors, service providers and consultants

**Critical Lifts:** (1) any lift weighing in excess of 20 tons, (2) any lift involving a crane suspended work platform (man cage), (3) any lift over critical operating and/or process equipment and (4) any lift that exceeds 85 % of the crane's load chart (5) any lift that utilises more than one lifting device (Tandem Lift).(6) Load transfers.(7) night lifting.

**Designer:** means any of the following persons:

A competent person who:

- prepares a design;

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- checks and approves a design;
- arranges for any person at work under his/her control to prepare a design, including an employee of that person where he or is the employer, or designs temporary work, including its components;
- is an architect or engineer contributing to, or having overall responsibility for, the design;
- is a building services engineer designing details for fixed plant;
- is a surveyor specifying articles or drawing up specifications;
- is a contractor carrying out design work as part of a design and building project, or an interior designer, shop-fitter or landscape architect.

**Eskom Requirements:** Eskom requirements, which evolve from directives, policies, standards, procedures, specifications, work instructions, guidelines or manuals

**Fall Protection Plan:** a documented plan, which includes and provides for:

All risks relating to working from a fall risk position, considering the nature of work undertaken, the procedures and methods to be applied in order to eliminate the risk of falling, and a rescue plan and procedures.

**Hazard:** a source of, or exposure to danger;

**Hazard identification:** the identification and documenting of existing or expected hazards to the health and safety of persons, which are normally associated with the type of construction work being executed or to be executed;

**Medical surveillance:** a planned programme or periodic examination (which may include clinical examinations, biological monitoring, or medical tests) of employees by an occupational health practitioner or, in prescribed cases, by an occupational medicine practitioner;

**Method Statement:** is a written document detailing work procedures and sequences of operations;

**On Site/Site:** any workplace where the contractor or his employees perform construction related work as agreed contractually with the client.

**Planned Task Observation:** an independent observation made during the planned period in which the task is being executed.

**Pre-Task Risk Assessment:** a meeting held prior to the commencement of the day's work with relevant personnel (client representative included) associated with the task at hand.

**Risk:** the probability that injury or damage will occur.

**Risk Assessment:** a programme to determine any risk associated with any hazard at a construction site in order to identify the steps needed to be taken to remove, reduce, or control such hazard.

**H&S File:** a file or other record in permanent form, containing the information on the H&S management system during construction including all information relating to construction phase after the handover to Client.

**H&S Plan:** a written plan that addresses hazards identified during the risk assessment process as well as the identified impacts in the H&S specification. This would typically include safe work procedures to mitigate, reduce or control the hazards identified and is specific to each construction project undertaken. This is usually compiled by the Principal Contractor or contractor and approved by the Client/Agent for which contracting work will be performed.

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**H&S Specification:** a site, activity or project specific document prepared by the client / agent, pertaining to all H&S requirements related to the envisaged construction work.

**Safe Work Procedures:** a series of specific steps that guide a worker through a task from start to finish in a chronological order. Safe work procedures are designed to reduce the risk by minimizing potential exposure.

**5. Abbreviations**

<b>Abbreviation</b>	<b>Explanation</b>
<b>AIA</b>	Approved Inspection Authority
<b>COID Act</b>	Compensation for Occupational Injuries and Diseases Act
<b>CR</b>	Construction Regulations
<b>CHSA</b>	Construction Health & Safety Agent
<b>DMR</b>	Driven Machinery Regulations
<b>DSTI</b>	Daily Safety Task Instruction
<b>EA</b>	Environmental Authorization
<b>ECO</b>	Environmental Control Officer
<b>EMP</b>	Environmental Management Plan
<b>FAS</b>	Fall Arrest Systems
<b>GSR</b>	General Safety Regulations
<b>HCS</b>	Hazardous Chemical Substances
<b>H&amp;S</b>	Health and Safety
<b>HIRA</b>	Hazard identification and risk assessment
<b>HV</b>	High Voltage
<b>LMI</b>	Lifting Machine Inspector
<b>LME</b>	Lifting Machine Entity
<b>LTIR</b>	Lost Time Incident Rate
<b>LV</b>	Low Voltage
<b>NEMA</b>	National Environmental Management Act
<b>NWA</b>	National Water Act (Act No. 36 of 1996), as amended
<b>NQF</b>	National Qualifications Framework
<b>OHNP</b>	Occupational Health Nursing Practitioner
<b>OHS Act</b>	Occupational Health and Safety Act No. 85 of 1993
<b>OHS</b>	Occupational Health and Safety
<b>ORHVS</b>	Operating Regulations for High Voltage Systems
<b>PPE</b>	Personal Protective Equipment
<b>PTO</b>	Planned Task Observations
<b>SANAS</b>	South African National Accreditation System
<b>SANS</b>	South African National Standards
<b>SACPCMP</b>	South African Council for the Project & Construction Management Professions
<b>SAQA</b>	South African Qualifications Authority.
<b>SHE</b>	Safety, health, and environment
<b>SHE/Q</b>	Safety, Health, Environment / Quality

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Abbreviation	Explanation
SETA	Skills Education Training Authorities
SWP	Safe Work Procedure
TPD	Transmission Projects Delivery

**6. Roles and Responsibilities**

**6.1 Commitment**

Visible commitment is essential in 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 H&S aspects of the project / contract. Legislation requires that each employee must take reasonable care of themselves and their fellow workers, from management to ordinary employee.

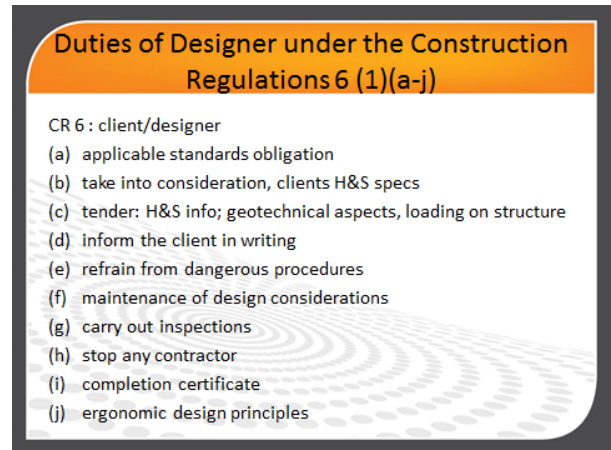
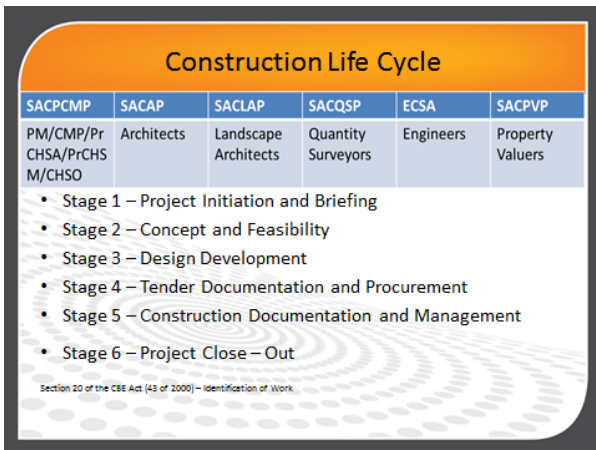
A minimum of two (2) Visible Felt Leadership Inspections per month shall be conducted by the contractor’s senior manager and submitted to Eskom Project Manager.

**6.2 Designers**

Designers shall ensure that the designs for construction work consider foreseeable constructability health and safety risks during construction and eventual maintenance and cleaning of the structure, together with other design considerations like aesthetics and cost.

Designers should apply the hierarchy of risk control. This means designers must identify the hazards inherent. If the hazards cannot be removed by design changes, the designer should minimize the risks and provide information about the risks that remain.

The designer should describe any matters that require particular attention by a contractor in the form of Constructability Risk Assessments and Method Statements.



Note: Towers on power lines need to be inspected individually supported by completion certificates.

**6.3 Principal Contractor’s accountabilities for their Contractors**

- Where a Principal Contractor procures the services of a contractor, he shall first inform the Client. Such contractor shall also comply with the Client’s H&S requirements.

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The Principal Contractor shall have the same roles and responsibilities in relation to the contractors as the roles and responsibilities between Principal contractor and client

- The Principal Contractor is accountable for the actions of his contractors. The Principal Contractor will also be responsible for initiating any remedial action (recovery plan) that may be necessary to ensure that the contractor complies with all requirements.
- The Principal Contractor shall ensure that appointed contractors have the necessary competencies and resources to perform the work safely.
- The Principal Contractor shall provide any contractor who is making a bid or appointed to perform construction work, with the relevant sections of the Client H&S specification. The contractor shall then develop a suitable and sufficient H&S Plan, and submit to the Principal Contractor for review and approval.
- The Principal Contractor shall carry out audits on the contractor at least monthly to ensure that their plan is being implemented and maintained.
- The Client/Agent and/or the Principal Contractor shall stop any contractor from executing construction work which poses a threat to the safety and health of persons or the environment or if it does not comply with the approved plan.
- The Principal Contractor shall have a disciplinary process to deal with H&S transgressions on site.
- The Principal contractor's Construction Manager/Supervisor shall provide a list of names and contact telephone numbers of all his employees as well as the contractor employees on site. This list shall be updated as and when new contractors commence on site.
- The Principal Contractor's Construction Manager/Supervisor shall keep a record of all employees including the contractor employees, including date of induction, relevant skills and licenses, and be able to produce this list at the request of the relevant officials. These records shall be kept in the H&S file on site.
- The Principal Contractor shall ensure that his managers / supervisors give employees clear and unambiguous instructions during the execution of construction works. The instructions shall include:
  - 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; and
  - Identification of sensitive features that may be impacted upon by the project, etc.
- Employees are responsible for their own health and safety and that of their co-workers in their respective areas of work. They must be made aware 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.
  - Declaring to the employer if taking medication, which may have intoxicating effects.

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- Every employee must undergo site induction provided by the Client before commencement of work, and shall, upon completion receive a site access permit.
- Any employee who becomes aware of any person disregarding a health & safety notice, instruction or regulation, shall immediately inform 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.

## **7. Management and Supervision of Construction Work**

The Principal Contractor shall ensure that the performance of construction work is managed and supervised in accordance with the requirement of the Construction Regulations. The Construction Manager shall be registered with SACPCMP and be in good-standing.

The number of appointed persons shall be determined by the size and the risk of the project.

## **8. Construction Health and Safety Manager/s and Officer/s**

The Principal Contractor shall appoint a full time Construction Health and Safety Manager / Officer considering the nature and scope of work to be performed in accordance with the requirements of CR 8 (5). The Construction Health and Safety Manager / Officer shall be in possession of a certificate of registration with the SACPCMP.

## **9. Process for Monitoring**

This document is subject to document control procedures and will be updated when due for revision or when conditions dictate.

### **9.1 Related/Supporting Documents**

Annexure A – SHEQ Policy 32-727

Annexure C - List of appointments and Competencies

Annexure E- Contractor Monthly Statistical Report

Annexure F- Pre-Task Planning Template

Annexure G- National Road Template

Annexure H- Flash Report template

Annexure I – Portable Toilet Specification

Annexure J – Project Handover Record Template

## **10. Document Content**

### **10.1 NOTE TO PRINCIPAL CONTRACTOR AND CONTRACTORS**

This H&S specification is Eskom's minimum requirements and is not exhaustive. The contractor shall develop a H&S plan in accordance with this specification, as well as the relevant applicable legislation. Eskom in no way assumes the Contractors legal responsibilities. The Contractor is accountable for the quality and the execution of his health and safety program for his employees and contractor employees.

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## **11. H&S Specification**

### **11.1 Project and Scope of Work Details**

**Location:** Mookodi Substation is located within the Vryburg area.

Mookodi substation, North West GPS Coordinates: TBA

### **11.2 Project description/ scope of work:**

The high level scope of works as compiled from the information made available is as detailed below:

The primary objective of the project is to install first 400/132/22 kV 500 MVA transformer and a 22/0.4 kV auxiliary transformer, cater for a spare 500MVA transformer bay, 4 x 400kV spare feeder bays, 2 x 400kV Busbar Reactor bays and 9 x 132 kV spare feeder bays. Hence extend both 400kV and 132kV yard terrace and extend both 400kV and 132kV busbars in the north-western and south-western directions. The existing fences and will be dismantled and relocated. The access control building will be relocated.

#### **The high-level scope of work for the 400kV system is as follows:**

- Extend 400kV Busbar 1 and Busbar 2 in the north eastern direction to install a Bus Coupler A and Busbar 1 Bus Section 1, and to cater spare bays for Transformer 11, Feeder 1, Feeder 6, Busbar Reactor 12 and Busbar 2 Bus Section 1.
- Extend 400kV Busbar 1 and Busbar 2 in the south western direction to install first 500 MVA Transformer 14 and to cater spare bays for Feeder 4, Busbar Reactor 11 and Feeder 5.
- Establish Transfer Busbar by extending existing Bypass Busbar 2.
- Transfer Bus Coupler A will be installed in the existing spare Busbar Reactor 11 bay.
- Install 400kV Transformer 14 bay.
- Install 1 x 500 MVA 400/132/22kV YNaOd1 Auto Transformer.
- Install 1 x 315 kVA 22/0.4 kV Dyn11 Auxiliary Transformer
- Install 400kV Bus Coupler A
- Install 400kV Transfer Bus Coupler A
- Equip 400kV Busbar 1 Bus section 1
- Decommission existing Busbar 1 Earthing Switch placed in the Busbar 1 Bus Section 2 Future Bay
- Install Busbar 1A CVT

#### **The high level scope of work for the 132kV system is as follows:**

- Extend 132kV Busbar 1 and Busbar 2 in the north eastern direction to install Bus Coupler A and to cater spare bays for Transformer 11, Feeder 1, Feeder 12, Feeder 13 and Feeder 14.
- Extend 132kV Busbar 1 and Busbar 2 in the south western direction to install Transformer 14 and to cater spare bays for Feeder 8, Feeder 9, Feeder 10, Feeder 11 and Capacitor 13.

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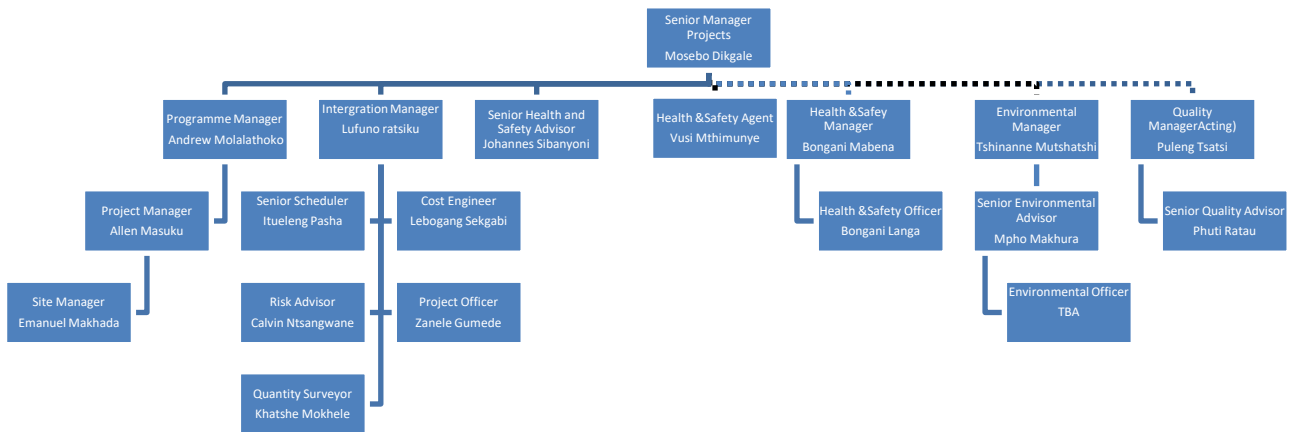
- New spare feeder bays are built with bypass facility.
- Existing spare feeder 3 will be the ninth spare bay under this project.
- Install 132kV Transformer 14 bay.
- Install 132kV Bus Coupler A.
- Equip 132kV Busbar 1 Bus section 2.

**Program details:**

- Submission of final H&S Plan must be before site establishment /access to site.
- Anticipated date for the commencement of work on site: 01 August 2024
- Project completion date or project duration: 30 August 2028

**Client and Principal Contractor: Details, Accountabilities and Responsibilities:**

**11.2 The Eskom Project Organogram:**



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### **11.3 Principal Contractor Organogram**

The Principal Contractor shall provide an organisational organogram related to this project, listing all the levels of responsibility from the Chief Executive down to the supervisors responsible for the project. The diagram must list the names of appointees and their roles and responsibilities including the statutory requirements appointees. The Principal Contractor is responsible for keeping copies of all of the organograms as well as submitting those of their appointed contractors, with the plan. All organograms shall be updated timeously when appointments are changed and filed in the project H&S file.

### **11.4 Principal Contractors**

The Principal Contractor has primary accountability and responsibility for the health and safety of his/her employees and his/her contractors within his/her working area, as contemplated by Section 37(2) of the OHS Act. None of the additional safety requirements specified by the Client reduces the Principal Contractor's accountability and responsibility for the health and safety of his employees and contractor employees within his working area.

The Principal Contractor shall be appointed and shall be responsible and accountable for all legal and Eskom requirements.

The Principal Contractor may appoint in writing contractors to assist in the contract.

### **11.5 Compliance and Non-Conformances**

Contractors shall comply with relevant legal and other requirements as part of the contract. Expenses to the Contractor, which result from such compliance, as well as any site-specific requirements, will be for the Contractors' account.

Where the Principal Contractor appoints another contractor, the same roles and responsibilities in relation to the contractor as the Client has in relation to the Principal Contractor.

The Client/Agent's reserves the right to stop work and issue a non-conformance report whenever H&S violations are observed from the Principal Contractors and their contractors, after engaging and making both aware of such. 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 exhaustive and the Client reserves the right to add, delete or modify conditions where it is considered to be appropriate.

**No claim shall be accepted as a result of any costs or delays being incurred due to the Principal Contractor or his contractors not complying with legislation, applicable Eskom Procedures and Standards.**

### **11.6 Legal and Other Requirements**

All Contractors shall comply with the relevant applicable legislation, specifications and standards in accordance with the scope of the project.

As a minimum but not limited to the following:

- 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
- Civil and Building Work Act
- Mine Health and Safety Act, 1996 and its regulations

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- Compensation for Occupational Injuries and Diseases Act (COID Act)
- Any other applicable South African legislation
- Applicable South African National Standards (SANS)
- Applicable international standards
- Eskom Operating Regulations for High Voltage Systems
- Eskom Plant Safety Regulations (Low Voltage Regulations)
- Relevant Eskom Procedures and standards
- ISO 45001: 2018, ISO 9001 and ISO 14001-Contractor shall use as guidelines.
- Disaster Management Act, 2002: (Act No.57 of 2002)
- Provincial and/or Local Authority By Laws

The Principal Contractor and contractor familiarise themselves with the necessary legislation required.

The Principal Contractor shall compile a legal register listing all applicable legislation and standards that may have an impact on the scope of work that they are performing on the construction project. The register shall be updated biannually.

## **12. Section 37 (2) (Legal) Agreement**

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

The principal contractor shall ensure that a section 37(2) agreement is compiled between himself and his appointed contractors.

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

Copies of all agreements must form part of the respective contractor's H&S file.

## **13. Hazardous Work by Children (Child Labour)**

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

- a) being protected from exploitative labour practices;*
- b) not to be required or permitted to perform work or provide services that*
  - are inappropriate for a person of that child's age; or
  - Places 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 6 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 the work performed is not prohibited in terms of the constitution, such work shall 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 does not condone the use of child labour all efforts must be exercised to avoid it.

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#### **14. Notification of Construction Work**

A Contractor shall, in the form of Annexure 2, notify the relevant Provincial Director (Local Service Centre) of the Department of Employment and Labour of the intention to carry out construction work as defined in the Construction Regulations, at least 7 days before construction work is to be carried out.

#### **15. OHS Act**

Contractors shall ensure that an up to date copy of the OHS Act and relevant Regulations is readily available on site to all employees.

#### **16. Construction Professional Registration**

The Principal Contractor and his appointed contractors shall ensure that:

- The appointed Construction Manager, Alternate Construction Manager and Assistant Construction Manager are in possession of the applicable professional Certificate of Registration with the statutory body, the South African Council for the Project, Construction Management Professions (SACPCMP);
- The appointed full time Construction Health and Safety Manager / Officer are in possession of the applicable professional Certificate of Registration with the SACPCMP; and
- Persons with foreign qualifications and registrations convert these to equivalent local registrations in that particular level or category (this shall be in accordance with SETA requirements).

**Note:** being in the process of registration shall be deemed to be not complying with these requirements. No person who is not in possession of such registration shall be appointed to the above positions. Consideration shall be made to those who are registered as Candidate in any of the categories mentioned above, provided that the individual candidates submit an agreement (appointment) between the candidate and the mentor. Both the candidate and the mentor shall submit their certificates to the client for considerations.

#### **17. SHE/Q Policy**

The Principal Contractor and contractors shall develop a SHE/Q Policy authorised by their Chief Executives [OHS Act Section 16(1) appointee] that states overall SHE/Q objectives and commitment to improving SHE/Q performance and must be conspicuously displayed and shared with all stakeholders.

Eskom has a SHEQ Policy that states the policy principles by which Eskom operates and the commitment to SHEQ excellence and is authorised by the Chief Executive, see Annexure-A and Annexure B.

#### **18. Costing for H&S**

The Principal Contractor and contractor shall ensure that the submitted tender adequately makes provision for the cost of H&S.

**Note:** the costing for H&S must be itemised based on the overall scope of the project e.g. resources, provision of PPE, occupational hygiene, occupational health, etc.

#### **19. Appointment of a Principal Contractor**

The Principal Contractor shall be appointed in writing by Eskom Project Manager on contract award and shall be responsible and accountable for implementing the relevant legal and Eskom requirements for the duration of the contract.

The Contractor shall only commence with the project work upon such appointment, in terms of Construction Regulation 5(1) (k).

No work shall commence until the SHE plan has been approved, and method statements/safe work procedures and risk assessments accepted by the client representative.

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## **20. Appointment of Contractors**

In terms of C.R. 7(1)(c)(v), the Principal Contractor may, in writing, appoint contractor(s) to assist in the contract. The baseline risk assessment (HIRA) and Health & Safety Specification by the principal contractor shall be in accordance with the scope of work for the contractor (s).

The Principal Contractor shall before appointing a potential contractor, conduct a selection and vetting process.

The H&S plan of the contractors shall be approved by the principal contractor prior the commencement of any activities by the contractors including the method statements/safe work procedure.

The principal contractor shall ensure that all appointed contractors understand their roles and responsibilities.

## **21. Appointments and Competencies**

The Principal Contractor shall ensure that appointees are made aware of their accountabilities and responsibilities in terms of their appointments, and advise and assist them in the execution of their duties.

The Principal Contractor shall ensure that competent persons are appointed in writing in accordance with the applicable appointments.

Copies of all the appointments shall be kept on file.

*See Annexure C for list of appointments.*

## **22. Training**

The scope of training shall include, but not limited to, the type of work being performed and the relevant procedures. In addition to the requirements, the Principal Contractor and contractor employees would require the appropriate qualifications, certificates, and be under competent supervision. Records of all training and qualifications of employees shall be readily available. The Principal Contractor and contractor shall maintain comprehensive records of employees who have attended induction training.

## **23. Site Induction**

### **23.1 General construction site induction carried out by the Principal Contractor**

The Principal Contractor and contractor(s) shall ensure that all their employees undergo their company's induction with regard to the approved H&S plan, general hazards prevalent on the construction site, construction risk assessment, rules and regulations, and other related aspects.

### **23.2 Visitors to Site**

The Principal Contractor shall ensure that visitors to a construction site undergo health and safety induction in accordance with Construction Regulations 7 (6) and 7 (7).

Visitors must remain in the care of a person (host) who has been properly inducted. No visitors are permitted to undertake any construction work.

## **24. Access and Security Control**

Employees, contractors and visitors shall be subjected to induction training and substance abuse tests when entering Eskom sites, or as and when required whilst on Eskom sites.

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The following are prohibited items and shall not be allowed on Eskom sites unless the necessary authorisation for possession has been obtained:

- Firearms and ammunition (excludes Eskom official firearms/ ammunition and firearms/ ammunition issued to the South African Security Forces);
- Liquor/ Alcohol;
- Dangerous weapons;
- Drugs (excludes items/ substances authorised for use and possession of medical centres or in possession under doctor's prescription); and
- Any other items that may be declared prohibited.

**25. Contractor's Site Facilities**

Site facilities shall be established and maintained by the contractor in accordance with the contractual agreement. The facilities include, but are not limited to the following: (refer to OHS Act Construction Regulations 30).

See also Annexure I for portable toilet specifications. Human excreta (stool) must not be visible while the next person relieves him/herself in the toilet. The design of the toilet should not expose employees to direct splashes of other people's human waste.

The Principal Contractor must develop their site establishment procedure and this must be in line with the EMPr and EA.

Dining facilities shall be of a reasonably practicable nature as per Facilities Regulations requirements:

- Transmission Line (tower position) taking into consideration the practicalities.
- Site camp (site offices), such facilities shall comply with the requirements of Part C of the SANS 1-0400

**26. Public Safety**

The OHS Act requires that employers 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 and safety (Section 9 of the OHS Act).

Contractors shall, in their H&S plan, factor in how they shall safeguard members of the public against their activities during the project.

**27. Project and Site Rules (Zero Harm to People and the Environment)**

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.

**Eskom Life Saving Rules**

Five Life Saving rules have been developed that apply to Eskom employees, agents, consultants, contractors and visitors. Failure to adhere to these rules will be considered a serious transgression. These rules are implemented to prevent serious injury or death of any employee, labour broker or contractor working in any area within Eskom.

The rules are:

RULE	DESCRIPTION OF RULE
------	---------------------

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Rule 1	<b>OPEN, ISOLATE, TEST, EARTH, BOND, AND/OR INSULATE BEFORE TOUCH</b> (That is plant, any plant operating above 1000 V)
Rule 2	<b>HOOK UP AT HEIGHTS</b> Working at height is defined as any work performed above a stable work surface or where a person puts himself/herself in a position where he/ exposes himself/herself to a fall from or into.
Rule 3	<b>BUCKLE UP</b> No person may drive any vehicle on Eskom business and/or on Eskom premises: Unless the driver and all passengers are wearing seat belts.
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>PERMIT TO WORK</b> Where an authorisation limitation exists, no person shall work without the required permit to work.

**Eskom will take a stance of zero tolerance on these rules**

Non-compliance to a Life Saving Rule shall be considered a serious misconduct and will lead to serious disciplinary action, which may include dismissal.

No person under the influence of alcohol, drugs or medication or any other condition that may render him incapable of controlling himself or other persons under his charge shall be allowed to enter the site.

All safety and warning signs shall be obeyed at all times.

Entering or leaving the Site will only take place at official access control points and may only be done via the official designated walkways.

The Principal Contractor must have a process in place to address employees that have contravened Health and Safety Requirements.

- **Smoking**

Smoking is only permitted at designated areas in accordance with the requirements of the smoking policy (32-1126: Eskom Smoking Policy).

- **Cellular Phones**

Cellular phones shall not be used in areas where their usage is prohibited.

A contractor shall develop and implement a risk based cell phone policy for a particular construction site.

- **Fire Extinguishers**

A Principal Contractor shall have a layout plan (site offices, laydown area) where fire-fighting equipment is located.

- **Vehicles and Traffic Rules**

Principal contractor and contractor shall ensure that drivers and passengers wear seatbelts while travelling in a motor vehicle.

No passengers shall be permitted to be transported at the back of trucks or light delivery vehicles (LDV).

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Passengers shall only be permitted to be transported at the back of such vehicles if fitted with a specially designed crew cab with appropriate seating and seat belt per passenger, by the manufacturer and manufacturer appointed fitment centre.

Where a vehicle licence conditions stipulate the number of persons to be transported on the vehicle, such number shall not be exceeded.

- **Substance and Drug Abuse Management**

The Principal Contractor shall provide a Substance Abuse management policy/procedure in line with the Eskom Substance Abuse Procedure 32-37.

The appointed testers for substance and drug abuse management shall be appointed in writing and given the relevant training.

## **28. Disciplinary Process**

The Principal Contractor shall have a disciplinary process / procedure to deal with employees who transgress organisational and legal requirements.

## **29. Hazard Identification and Risk Assessment**

The client shall prepare and provide a Baseline Risk Assessment for an intended construction work to the contractor as part of the contract package.

The Principal Contractor shall develop a Risk Assessment in line with Construction Regulation 9 (1) (a-e), in alignment to Eskom 32-520 procedure.

Detailed Risk Assessment must be conducted to ensure that all the applicable scenarios are covered and documented per site activities including practical controls. This must include Occupational Health and Hygiene Plan.

- Each site must have a detailed Emergency Preparedness & Response Plan
- Detailed Induction must be developed and be aligned to site activities.

## **30. High Risk Activities**

When the Principal Contractor and/or his contractors are working in an area where a high health and safety hazard exists, the Principal Contractor shall:

- Ensure that permanent and adequate supervision is available for the duration of the work performed;
- Work within visible earths (Standard Line Construction Method);
- Ensure the use of safety standbys in areas of high risk activities, and activities that fall within the scope of the permit to work system;
- Provide, erect and maintain the required barricading, lighting, flags, flashing lights, or other safety control equipment to enable operations to proceed in a safe manner;
- Maintain defined access ways, which are clear of obstructions, so as to allow for emergency vehicle entry; and
- Provide any temporary protective shielding required for protecting nearby operations from the construction activities, at their own cost.

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- Principal Contractor shall ensure that whenever mobile cranes/ lifting machinery are operated onsite, the booms are retracted and safe clearances from overhead power lines, communication lines or other overhead obstructions are observed and maintained as per Electrical Machinery Regulations 19 & 21, Eskom Procedure "Operating Regulations for High Voltage Systems (ORHVS)-32-846" Section 5.03.6.3 (Work in close proximity to live conductors / apparatus). Supervisors shall be trained in the Eskom ORHVS. Thorough risk assessment shall be conducted prior the activities and risk-specific PPE shall be identified and issued to the specific team that will be working in the close-proximity to live line/conductors
- Height restriction barriers/cross-bars must be erected on both sides of the overhead power lines, communication lines or other overhead obstructions. Establish the permitted safe clearances in consultation with the owner of the line.

### **31. Operational Regulations for High Voltage Systems**

To ensure the safety of workers, visitors and other persons who may be affected, the operating regulations for high voltage systems shall apply during construction of high voltage apparatus (construction of transmission/distribution lines) or working in live yard inside a substation.

The Principal contractor shall ensure that workers in prohibited areas inside a sub-station shall be under supervision of an authorised person, under a work permit.

The authorised person shall be present throughout the operations.

Reference: ORHVS 240-114967625

### **32. Pre-Task Risk Assessment**

The Contractor shall on a daily basis and for every task to be performed, conduct a daily pre-task risk assessment with employees involved with the task(s), such as DSTI. The pre-task risk assessment will form the basis of the daily pre-job brief/toolbox talks prior to the start of work. This will highlight critical steps from the method statement (safe work procedure) to ensure that work is performed in a safe manner. Proof of communication as well as confirmation that it was received and understood by all will be recorded and kept at the job site during the job execution. The completed signed pre-task risk assessment form shall be filed in the Principal Contractor's safety file.

### **33. Pre-task Planning**

Upon receipt of the task for the day, the Principal Contractor site manager or his/her assignee the site supervisor, shall perform pre-task planning, along with the Client site manager or his/her assignee the site supervisor in accordance with TPDMAN-WN-59, Annexure F – Pre-Task Planning Template.

### **34. Safe Work Procedures / Safe Work Method Statements and Practices**

The Engineer/Designer contributing to or having overall responsibilities for a design (Line & Substation Engineering Services) shall compile constructability risk assessments that shall be shared with Project Management Team and the Principal Contractor.

The Principal Contractor shall then compile project / site-specific work safe work procedures for all the high-risk activities as identified in the risk assessment and scope of work, which will be submitted to Project Manager. The project manager shall follow the established Safe Work Procedure Process Flow for consideration by the other functional areas.

*Note: The acceptance will be qualified with the statement: "Acceptance does not relieve the contractor of his responsibility for ensuring work safe working procedures in terms of the Construction Regulations. No work*

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*shall be carried out without a Principal Contractor approved safe work procedure and task specific risk assessment.*

### **35. Planned Task Observations (PTO)**

The site manager / supervisor shall conduct Planned Task Observations (PTO).

PTOs shall be conducted in such a way that the employee is observed against the actual steps of the safe work procedure (SWP)/ safe work method statements and marked against compliance with each step. This will assist in determining employee competence and compliance. Record shall be kept.

The minimum items that must be in the PTO but not limited to:

- Project name
- Title of the SWP, reference number and revision number
- Specific activity
- Steps
- Safety Steps
- Critical steps
- Follow-up action
- Observation conducted by (full name)
- Designation (e.g. supervisor)
- Individual/Team observed names
- Date of observation
- Signature

### **36. Work at Elevated Positions and Roof Work**

The Principal Contractor shall ensure that all work performed at elevated positions conform to the requirements of the Construction Regulations, the relevant Unit Standard(US) and Eskom Procedure 32-418 (Working at Height Procedure).

A fall protection plan, which must be based on the tower design supported by the required risk assessments will be compiled, implemented, reviewed, and communicated to all employees working at heights.

The Principal contractor shall review their risk assessment and fall protection plan as required, at intervals to be determined by the Principal Contractor, and taking into consideration:.

- incident trend analysis, or new/revised technology;
- changes to scope of work, changes to work methods/procedures/equipment, etc.;

The Contractors shall stop all persons working in elevated positions during periods of inclement weather;

Safety belts are not allowed to be used in Eskom. An appropriate full body safety harness shall be worn when working at an elevated position, refer to SANS 50361;

- Working in elevated positions shall only be carried out under the supervision of a competent person in accordance with US 229995;
- Fall arrest/protection plan and equipment shall be implemented where fall prevention is not possible.
- Fall protection equipment shall comply with Unit Standards and other recognised international standards.

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- The Principal Contractor and/or his contractor shall compile a fall protection equipment inspection, testing and maintenance procedure (Refer to SANS 50365 and manufactures requirements for safe use and for inspections).

Provision must be made to prevent objects and/or material from falling from elevated areas and the protection of persons working below. A drop zone shall be established with barricading and necessary signs.

- An Engineer shall do a design and calculations for all scaffolding where applicable.

### **37. Training and authorization**

- Every employer shall ensure that no person engages in any activity in relation to work at heights unless they are competent to do so.
- Only training providers that use competent training instructors and assessors who are SETA-Accredited and SAQA-registered in terms of the relevant unit standards shall be used.
- All persons who work at heights or who are required to do rescue at heights shall receive three days of Fall Arrest System (FAS) training and two days of rescue training in accordance with the Unit standards 22998 and 229995
- The Contractor must ensure that all persons who work at heights and those who will be required to do rescue at heights shall receive training according to the relevant unit standards. As a minimum, individuals who work at height and are not responsible for performing a rescue must undergo three days of FAS training (Unit Standard 229998) and rescuers must further undergo two days rescue training in accordance with the Unit Standard 229995. Rescuers must be appointed in writing for the particular site/project
- Official FAS training shall not have an expiry date on the certificate.
- Only the training date shall be indicated on the certificate.
- Official rescue training shall expire every three years from the date of issue.
- The Contractor shall ensure that there is a Level 2 First –Aider trained for every team working at height.

All work at heights appointments and competency certificates shall be kept in the Health and Safety File.

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

- Ladders used on the site shall comply with the OHS Act and Regulations, the relevant SANS standards or other recognised international standards.
- Damaged ladders shall be clearly marked and Quarantined and removed from the project site.
- Prior to work being performed, an adequate risk assessment shall be conducted, and work shall be conducted in accordance with General Safety Regulation 6 and 13A and Construction Regulation 10 of the OHS Act

### **38. Occupational Health and Hygiene**

Principal Contractor and contractors shall develop an Occupational Health and Hygiene program to ensure the risks to health are identified and controlled.

(See *TPDMAN-GL-50*)

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### **38.1 Occupational Hygiene Management Program**

Principal Contractors and contractors shall develop, implement and maintain an occupational hygiene management programme to ensure that the occupational hygiene stressors are identified assessed (monitored) and controlled. The occupational hygiene programme shall include, but not limited to the following elements:

- Occupational health risk assessment as a foundation;
- Occupational hygiene monitoring program. Monitoring shall be performed by a SANAS accredited AIA;
- Communication of occupational hygiene results and requirements;
- Conduct awareness trainings and keep registers; and
- Keep Occupational Hygiene surveys reports for a period of 40 years.

Where there are occupational hygiene stressors, Principal Contractors and contractors shall ensure that programs are developed and in place to address the said stressors. These programs may include but not be limited to:

- Hearing Conservation Program;
- Respiratory Protective Program
- Hazardous Chemical Substances Program
- Procedure for the use and management of radioactive sources (where applicable)
- Heat and cold stress Management Program

Principal Contractors and contractors shall report to the Department of Employment and Labour on occupational hygiene milestones (e.g. crystalline silica). Evidence of reporting and copies of such reports shall be made available to the SHEQ Manager / Practitioners.

Copies of all occupational hygiene surveys conducted by the Principal Contractor and contractor shall be submitted to TPD Management/Occupational Hygiene Practitioners for information and record keeping.

### **38.2 Medical Surveillance Programme**

The Principal Contractor and contractor shall ensure that their employees are registered on a medical surveillance programme and are in possession of a valid medical fitness for duty certificate specific to the construction work to be performed. The Fitness for duty certificate shall be in form of Construction Regulation, Annexure 3, and be relevant to the type of work (risk based) that the employee will be exposed to.

The Principal Contractor and contractor/s shall ensure that employees have undergone pre-entry medical examination before starting work on site. ***No employee shall access site without a valid Medical fitness for duty certificate.***

The Principal Contractor and contractor/s shall ensure that employees undergo a periodic medical examination as and when a need arise.

The Principal Contractor and contractor/s shall ensure that employees undergo an exit medical examination at the end of the project or when the service of the specific employee has been terminated or has expired.

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

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### **38.3 Emergency Care**

A list of emergency numbers (local emergency numbers and Eskom ER24 numbers) shall be posted where it is visible in the offices places such as information H&S board, eating area etc. The Principal Contractor and contractor shall ensure that all employees are familiar with the emergency numbers.

Where the principal contractor or/and contractor has established their own contract with a specific service provider, those numbers must be part of the induction and be used in conjunction with local or Eskom numbers. It must be made clear to the employees that in any event one of the numbers must be used or the combination to ensure that the life of the individual is preserved.

Emergency numbers shall be part of the induction.

Eskom has established a contract with ER24 (084 124) for employees and its contractor employees for emergency medical assistance incurred whilst on duty anywhere in South Africa. The telephone number is 010 205 3400.

SAPS	10111
ER 24	084 124
Ambulance	10177

### **38.4 Employee Assistance Programs (EAP)**

The contractor will engage the local clinics on HIV/AIDS Awareness programme. This will include voluntary counselling and testing (VCT) of individuals, with chronic illnesses such as diabetes; hypertension; HIV/AIDS awareness training. Ensure access to ongoing support for affected individuals. The Contractor shall communicate the programme to all personnel.

### **38.5 Rehabilitation**

The Principal Contractor/contractor shall ensure rehabilitation of employees injured where rehabilitation is required.

The treating Doctor/Hospital will recommend and refer. The contractor must comply with recommendations, communicate with employee and provide transport according to the planned appointment.

The process shall continue until the rehabilitation of an employee is declared fit by the Doctor/Hospital.

### **38.6 Compensation of Occupational Injuries and Diseases Act (COIDA)**

The Principal Contractor and contractor shall submit proof of registration and valid letters of good standing with the compensation fund or a licensed compensation insurer. The Letters of Good Standing shall reflect the names of the Principal Contractor/contractor/s and be categorised according to the relevant construction activity.

## **39. Emergency Preparedness and Response**

The Principal Contractor shall provide a site-specific emergency preparedness and response plan of which it shall include the specific activities being executed for site and offices and submit this plan to the client for review.

The Emergency Preparedness Plans shall include office emergencies such as, fires, work injuries, bomb threats, building evacuation, civil unrest, the communication with the various emergency services etc.

The contractors' shall ensure that all the employees are fully conversant with this plan.

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The Principal Contractor shall plan, conduct emergency drills at specific intervals and identify areas for improvement. The report shall be written and action plan where applicable be developed and all the records shall be made available for inspection/audit by the client and/or authorities.

#### **40. Fire Safety**

Contractors shall develop a fire safety procedure for the office / campsite, which must meet the requirements of the local authority fire department and Section 9 of the Environmental Regulations for Workplaces.

#### **41. Site plans**

When preparing worksite Emergency Preparedness Plans, cognisance must be made as to the locality of the site and the response time for the emergency services. Where sites are remote, contractor management shall ensure that a sufficient number of employees are trained in the various disciplines to be able to afford prompt response attention.

#### **42. Fire hazard**

The Contractor shall develop emergency protocols for dealing with fires, which may include a Fire Management Plan in accordance with the National Veld and Forest Fire Act (No 101 of 1998) and ensure that all staff is trained / informed in fire prevention.

No area shall be denuded of vegetation to create firebreaks. Open fires are not allowed on site. The Contractor Environmental Officer shall ensure that in areas with a high fire danger rating, staff is informed of this. Smoking shall be restricted to designated areas or shall not be allowed, particularly in areas that have a high fire danger rating.

Contractor shall ensure that adequate Fire Fighting equipment is available on site, particularly near hot work and/or where it is specifically identified as a requirement by either the land owner or during the risk assessment.

#### **43. Material requirement**

The use of any material or property belonging to a landowner shall not be permitted prior to arrangements with that landowner. Written proof of such agreement shall be submitted to the client.

#### **44. Environmental Dust and Noise**

The Contractor shall monitor dust and noise caused by mobile equipment, generators and other equipment during construction. Factors such as wind can often affect the intensity to which these impacts are experienced.

To ensure that noise does not constitute a disturbance during construction activities, construction works shall occur between specific working hours.

Dust suppression measures shall be in place to reduce the dust caused by the movement of heavy vehicles and other contractor activities.

#### **45. Signing off of the contract**

No project shall be signed off before the client has assessed the activities completed in relation to environmental liabilities/requirements and health & safety outstanding issues.

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#### **46. Forums for Governance and Communication**

Governance and communication structures shall be established on site where project H&S matters shall be discussed. The agenda, minutes and attendance registers of H&S meetings shall be available.

**NOTE: These meetings do not replace or act as a substitute for the required statutory meetings.**

Statutory H&S Committees in terms of Section 19 and 20 and General Administrative Regulations 5 of the OHS Act and Eskom requirements shall be established.

**NB! Such Statutory H&S Committees shall meet on a monthly basis.**

#### **47. Construction Vehicles and Mobile Plant**

Construction vehicles and equipment shall comply with the relevant legal and other requirements like Construction Regulations 23, the National Road Traffic Act, the Mine Health and Safety Act, National Environmental Act and Eskom Vehicle Safety Specification Procedure 240-62946386.

**The following requirements are applicable during operation of construction vehicles:**

- A Principal Contractor/ contractor shall ensure that construction vehicles and mobile plant are operated by persons with appropriate training, certified competent and in possession of proof of competency, and authorised in writing to operate those construction vehicles and mobile plant;
  - Designated drivers shall be in possession of an appropriate valid driver's licence for the class of vehicle operated. The driver's license shall be kept by the person so authorised who shall produce such card on request.
  - All construction vehicle operators, flagman/banksman/signalman/pointsman shall wear visible PPE at identified high-risk construction sites, and shall be visible to the operators during the day or night.
  - Heavy construction vehicle parking sites, driveways, or any site shall be designed in such a way that no reversing is required. Where reversing is unavoidable, it shall only be done in the presence of a flagman or a banksman.
  - The contractor shall develop a vehicle and pedestrian management plan.
  - Relevant traffic signs shall be displayed.
  - Reverse beepers shall be fitted on construction vehicles.
  - Drivers of construction vehicles and mobile plant shall have medical certificates of fitness to operate those construction vehicle and mobile plant, issued by an occupational health practitioner in the form of Annexure 3 of the Construction Regulations.
  - The speed limit within the bounds of the construction site shall be clearly stipulated and communicated to everyone and be part of the induction.
  - Drivers / operators shall not text or talk on cell phones or two-way radios while driving.
- The Principal Contractor/ contractor shall ensure that employees do not:
- Ride on back of light delivery vehicles, cranes or other mobile plant equipment.
  - Leave vehicles unattended with the engine running.
  - When unattended, vehicles shall be locked, chock blocks fitted and keys removed;
- Vehicle shall be searched on the premises or when entering or leaving the premises.

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- The Principal Contractor/ contractor shall be responsible for the safety and security of his vehicles (including private vehicles) on the premises.
- The Principal Contractor/ contractor shall maintain his vehicles in roadworthy condition with valid licenses. These vehicles shall be subject to inspection by the Client representative. Un-roadworthy vehicles shall not be allowed to site.
- Construction vehicles shall be operated in accordance with the license requirements. Where a vehicle licence stipulates the number of persons to be transported on the vehicle, such number shall not be exceeded.
- Where the Principal Contractor/ contractor do not own the equipment, the Principal Contractor is still responsible for ensuring his contractors comply with requirements or hire companies (service providers).
- Precautions shall be taken to lash loads properly. Loads projecting from vehicles shall be securely loaded and, in daytime, a red flag attached to the load, during darkness a red light or red reflective material shall be attached to the extreme end of such projecting material.
- Principal Contractor/ contractor shall ensure that construction vehicles and plant are maintained according to the manufactures specifications. Servicing and repairs shall be carried out in a designated area.
- Construction vehicles and mobile plant whose vision is impaired when reversing shall have a beeping siren/hooter when reversing. This includes trucks, cranes, loaders, etc.

#### **48. Housekeeping**

The Principal Contractor/ contractor shall maintain a high standard of housekeeping on site. Prompt disposal of waste materials, scrap and rubbish is essential.

The Principal Contractor/ contractor shall carry out regular safety/housekeeping inspections (at least weekly) to ensure maintenance of satisfactory standards, and document the results of the inspection.

#### **49. Signage**

Symbolic safety signs shall comply with the requirements of SANS 1186.

The display of the following signage is mandatory:

- The Principal Contractor sign shall be posted at their site offices and shall have the name and contact details of the: Construction Supervisor; Health and Safety Manager/Practitioner; First Aider; Health and Safety Representative and Evacuation warden, Construction Health and Safety Agent and Construction Permit.
- The Contractors shall provide the signage in accordance with the scope and work area.

#### **50. Hazardous Materials/Chemicals Management**

Hazardous Chemical Substances (HCS) shall be managed in accordance with HCS Regulations,2008.

Before a HCS is brought to the site, the Principal Contractor/contractor shall supply the Client with:

- Safety Data sheets (SDS) in accordance with the requirements of the OHS Act
- Proposed arrangements for safe storage;
- Proposed methods for handling/usage;
- Proposed method of disposal;
- Hazard communication / training plan.

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## **51. Flammable and Combustible Liquids**

Use and temporary storage of flammable and combustible liquids shall be managed in accordance with Construction Regulations (CR 25) and GSR 4 of the OHS Act 85 OF 1993.

The principal contractor/contractor shall submit official proposal to store fuel on site to the client (where applicable). The volumes of fuel allowed to be stored will depend on site conditions and Statutory Regulations.

## **52. Compressed Gas Cylinders**

Use and temporary storage of Compressed Gas Cylinders shall be managed in accordance with the General Safety Regulation 9 of the OHS Act 85 of 1993 and SABS 10019:2011 and 10263-2:2015.

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

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/ contractor shall use the relevant international/national recognised (technique/model) approved risk based PPE at all times, as a minimum:

- Head protection hard hat (with 3 point chin straps);
- Steel toe capped safety boots;
- Eye protection. Where mandatory wearing of impact Safety Spectacles with side shields.
- Long sleeved and long pants protective clothing (with high visibility stripe) applicable mainly to site based employees;
- High visibility vests; (long sleeve vests, unless the arms are covered – the bib can be worn) applicable mainly to site office based personnel and visitors.
- Refer to General Safety Regulation 2 of the OHS Act.

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

The Principal Contractor/ contractor shall provide a detailed procedure with a matrix on the issuing, maintenance, replacement and disposal of PPE for all his employees on site.

The Principal Contractor/ contractor shall keep an updated register of all PPE issued.

## **54. Machinery, Tools and Equipment**

- Machines driven by means of belts, gear wheels, chains and couplings shall be adequately guarded such that persons cannot gain inadvertent access to the moving parts.
- Machinery, tools and equipment shall be regularly inspected, as required by legislation and risk assessments, registers of tools shall be kept on the safety file. The equipment shall be numbered or tagged so that it can be properly monitored and inspected.
- Machinery, tools and equipment shall have the necessary approved test or calibration documentation, where applicable, prior to being brought onto the premises
- Employees operating or using machines and tools shall:
  - Be competent.

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- Have a valid competency-training certificate.
- Have proof of any form of task related training.
- A legal appointment specific to the machinery he/she is operating
- Be made aware on the use of inspection checklist

### **55. Machine Guarding**

Machine guards, inside of guards and moving or rotating parts shall be painted as per statutory requirements

A competent person shall inspect machine guards as per statutory requirements and by users prior to use. These inspections and proof of corrective action taken must be recorded and kept on site.

### **56. Hand Tools and Pneumatic Tools**

Pneumatic tools shall be numbered, recorded and inspected as per statutory requirements, and by users prior to use. The revolutions per minute measured shall be in accordance with the manufacturer specifications.

Users prior to use shall inspect hand tools.

The Principal Contractor/ contractor shall have a policy on makeshift tools safety on site.

### **57. Pressure Equipment**

The Principal Contractor shall ensure that an Approved Inspection Authority (AIA) in accordance with the Pressure Equipment Regulations 7 inspects pressure equipment.

Pressure equipment shall be provided with at least one safety valve and such valve shall be kept locked or sealed in accordance with the Pressure Equipment Regulations 10.

The pressure equipment shall be provided with a manufacturer's plate in accordance with the Pressure Equipment Regulations 9.

The pressure equipment shall be fitted with a pressure gauge in Pascal and the maximum permissible operation pressure marked with a red line on the dial.

### **58. Lifting Machines and Lifting Tackle (DMR 18, CR 19 and SANS Codes)**

#### **(Mobile Cranes, Chain Blocks and Lever Hoists)**

The Principal Contractor shall ensure that the use of lifting machines and tackles conform to the requirements of the DMR and CR, SANS 12480-1: 2006 (Safe use of Cranes), Eskom Procedure 39-98 (Safe use of Lifting machines and lifting tackle) and other relevant requirements.

- When equipment is brought to site, the contractor-authorized personnel shall inspect it as appointed in accordance to SANS 12840-1: 2006.
- The Principal Contractor shall ensure that an operator specifically trained for a particular type of lifting machine operates every lifting machine as listed in the National Code of Practice and in possession of a valid permit (although the code of Practice has been withdrawn, contractors shall use it as a guideline).
- When making use of an external contractor to do lifting work, the Principal Contractor/ contractor shall, after looking at his portfolio, ensure that the operator is competent, and shall issue the operator with a temporary permit.  
Principal Contractor/ contractor shall conduct audits/inspections to ensure that the contractor complies with legal requirements.

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- The Principal Contractor/ contractor shall verify that ropes, chains, hooks and other attaching devices, sheaves, brakes and safety devices forming an integral part of lifting machines have been thoroughly examined, as prescribed by the standard to which the lifting machine was manufactured. This shall be carried out by a registered LMI, appointed by a registered LME who has knowledge of the erection and maintenance of the type of lifting machine involved at intervals not exceeding six months.
- Lifting machine and lifting tackle operators shall be in a possession of a medical certificate of fitness as per Construction Regulation Annexure 3
- Before using a lifting machines or tackle the operator shall inspect it daily, refer to the requirements of the Driven Machinery Regulations 18 of the OHS Act 85 of 1993.
- Lifting machines shall be examined and subjected to a performance test by an accredited person/company at intervals not exceeding 12 months, in accordance with SANS 19.
- Lifting tackle shall be examined at intervals not exceeding 3 months by a competent lifting tackle inspector, who shall record and sign of such examination, such lifting tackle shall be stored or protected to prevent damage or deterioration when not in use.
- Lifting tackle shall be recorded on a register.
- The test/inspection certificate of the lifting equipment's shall be available on site and be filed
- Hooks shall be fitted with a safety latch/catch in a good operational condition.
- A lock out system must be implemented to ensure that only a competent and authorised operator can draw lifting machines and fork lifts.
- All lifting tackle shall be conspicuously and clearly marked with identification particulars and the maximum mass load, which it is designed for.
- No person shall be moved or supported by means of a lifting machine unless such a machine is fitted with a cradle approved for that purpose by an inspector of The Department of Employment and Labour.
- Account should be taken of wind forces. Lifting machines are erected taking into account a safe distance from excavations, and with the erection of tower cranes, a tower crane application accompanied by a method statement, risk assessment and geotechnical study shall be given to the engineer for approval.
- When working in close proximity to power lines, the Principal Contractor / contractor shall apply for a permit. Refer to Eskom Plant Safety Regulations and/or Operating Regulations for High Voltage Systems and Electrical Machinery Regulation 15 of the OHS Act.
- Principal Contractor / contractor shall ensure that employees are adequately informed of the hazards when working in close proximity to overhead power lines and electrical installations.
- Rigging studies shall be conducted for all critical lifts.
- Employees shall keep out from under suspended loads, including excavators, and between a load and a solid object where they might be crushed should the load should swing or fall. They shall not pass or work under the boom or any crane or excavator or barricading.
- Guide ropes shall be used to prevent loads from swinging. (Manila ropes)
- Only loads of up to 5ton can be lifted by a person with basic rigging, depending on the complexity of the load. Only a qualified rigger will a tandem lift or a complicated lift do such lifts. Above 5 ton, a qualified Rigger with a red seal ticket will conduct all the lifts, and should the lift become critical, a critical lift procedure will be completed accompanied by a rigging study and risk assessments.
- Hand signals shall be visibly displayed on cranes and the SANS 10296: 2008 standard must be used to ensure uniformity. Crane operators, riggers shall be trained according to the SANS 10296: 2008.
- An authorised appointed person when conducting maintenance and inspections shall issue permits.

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- An illumination survey should be conducted prior to the start of work where lifting is performed at night.
- All truck mounted cranes and stringing machines shall be fitted with Equal Potential Foot plates when working in close proximity of power lines.
- Smoking is not permitted indoors, at entrances to buildings or near air intake systems in accordance with the Tobacco Control Act and legislation requirements.

### **59. Electrical Installations and Machinery on Construction sites**

The Principal Contractor / contractor shall ensure that electrical installations and machinery on construction sites conform to the requirements of the OHS Act and the relevant SANS standards.

An appointed competent person must inspect temporary electrical installations used by the contractor at least once a week. The inspection findings shall be recorded in a register kept on the construction site.

### **60. Permit to Work**

Principal Contractor / contractor shall adhere to the approved Eskom Permit to Work System to control identified high-risk activities. There will be only one Permit to Work system (Eskom) on the construction site.

If any type of work requires a permit, Principal Contractor / contractor shall be trained, competence assessed and authorised in writing to perform the duties of an authorised or responsible person as contemplated in the applicable Eskom regulations.

### **61. Excavations, Trenches and Floor Openings**

- Requirements in Construction Regulation 13 of the OHS Act, shall apply.
- Digging, excavation, or driving a peg, pile or spike into the ground operations by the Contractor may not commence without the written authorisation from the Client.
- Prior to commencing with excavation or trench work, a ground penetrating radar survey/scan shall be conducted to determine the location of underground installations; i.e., sewer, telephone, water, fuel, gas, electrical, etc. Where underground services are detected, the affected utility owner(s) must be informed / contacted and advised of the proposed work.
- Overhead hazards shall also be assessed and dealt with prior to commencement of work.

Note: Barricading shall be of the rigid type.

No danger tapes are allowed for barricading purposes.

### **62. Working near Public Roads**

- Principal Contractor / contractor employees required to work on or near roadways shall wear high visibility vests, and be protected by red cones or flags during daylight and by red or amber flashing lamps at night.
- Work areas must be adequately barricaded to prevent unauthorised access.
- Road traffic warning signs shall be placed well ahead of the work area.
- The Contractor shall have an approved plan when crossing the Public roads during line crossing; this would be applicable for transmission power-line projects.

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### **63. 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.

Two work stand down interventions to be planned each financial year. These engagements will focus on amongst others, the pro-active reviews of programmes/plans and the implementation thereof, audit findings & associated action plans and peer reviews.

The temporary stoppage of an activity/activities or task(s) due to H&S concerns shall not warrant any financial compensation. For example:

- Safety intervention by Eskom management: All work of a similar nature may be stopped as the result of an occurrence of a serious incident. The relevant Principal Contractor / contractor shall be required to comply with, and/or verify, the conditions stipulated in the work stoppage instruction pack.
- Safety intervention by any person, especially functionaries, due to unsafe work or unsafe behaviour by the Principal Contractor / contractor. The conditions that gave rise to the work stoppage will determine the corrective measures to be taken urgently to protect the health and safety of employees and protect the environment and plant or equipment, etc.

Work stoppage/Stand down due to Eskom request or/and authorities such as Department of Employment and Labour (Department of Forestry, Fisheries and the Environment-DFFE) etc., shall not be compensated due to non-compliance with legislative/statutory requirements.

**NOTE:** *Work stoppages that are initiated due to related incidents shall not warrant any financial compensation claim lodged against Eskom.*

### **64. Audits/Inspection**

Eskom reserves the right to conduct unannounced audits/inspection on contractors.

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.

Principal Contractor shall conduct audits monthly on contractors on the implementation of the contractor's H&S Plan and legal requirements. A summary of the findings and the proposed corrective actions shall be submitted to the client. The report shall be submitted within one week after completion of the audit.

In cases where a Principal Contractor / contractor have a third party legal compliance verification audit that conducted on the site activities, a copy of the summary of the findings and the proposed corrective actions shall be submitted to the client. The written report shall be submitted within one week after the completion of the audit.

The principal contractor shall conduct inspection on all high-risk activities and the report shall be prepared and shared with the respective personnel. The report shall be available on site for information purpose for the client or authorities such as Department of Employment and Labour.

The results of the audit conducted and inspections shall form part of the agenda item on the Health & Safety Committee. This shall include the corrective and preventative action and a register to indicate the closed or open items. This shall be in a form of action item and be traced on a monthly basis.

### **68. Non-Conformance and Compliance**

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Principal contractors are required to implement a non-conformance procedure (if not already in place) for issuing to contractors for transgressions. Similarly, appointed contractors must implement a non-conformance procedure.

The procedure for the issuing and closing-out of non-conformance reports shall be strictly adhered.

Contractor project management must monitor the closeout of non-conformances issued.

Root Cause Analysis shall be carried out on the non-conformity in order to take appropriate action to prevent a recurrence and deal with the consequences

### **69. Compliance and Approval of Contractor Health & Safety (H&S) Plan**

The Principal Contractor shall evaluate Contractor's H&S Plan against a compliance checklist to ensure compliance with the requirements in the Eskom specifications and statutory/legislative requirements. Once satisfied, the Principal Contractor shall approve the Contractor H&S Plan (See Annexure D for the minimum contents of H&S Plan).

Principal Contractor shall monthly conduct audits on contractors on the implementation of the contractor's H&S Plan and compliance with statutory/legislative requirements. The report shall be submitted to the client with the action plan that include the findings, root causes, corrective action actions, preventive actions, responsible person, targeted due date, status of each item (open or closed) and the proof of closure must be available on site.

The above information shall form part of the H&S committee standard items.

### **70. Contractor Performance Evaluation**

Eskom shall evaluate Principal Contractor performance on an on-going basis against the Eskom requirements and statutory/legislative requirements.

### **71. Investigation of Fatalities / Injuries / Diseases / Near Misses (Principal Contractor and Contractors)**

- The Principal Contractor/contractor shall report all incidents/accidents as required in terms of legislation including near miss incidents, first aid, medical treatment, lost time incidents (lost time injuries and fatalities); Section 24 and 25 incidents; electrical contact; major equipment damage; chemical spillage and other environmental incidents within 24 hours or before the end of the work shift.
- All incident-reporting, recording, classification and investigation will be done according to the requirements set out in the Eskom document 32-95 (latest revision).

*See Annexure H for Initial Notification Report*

### **72. Behavioural Safety Observations and Inspections**

The Principal Contractor must ensure that Behavioural Safety Observations and Inspections are conducted in order to assess and address the actual safe and unsafe behaviours of people in the workplace; as well as workplace conditions - which are caused by the actions or non-actions of employees, contractors or their supervisors. (Refer to Eskom Behavioural Safety Observations procedure 32-407)

### **73. Monthly Statistical and Non-Statistical Reports**

The aim of this section is to outline all the incidents the Contractors must report to Eskom. Reporting must not be later than the client stipulated date, monthly. The reporting format is indicated:( Refer to Annexure E)

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#### **74. Contractors Health & Safety (H&S) Plan**

The principal contractor shall use this H&S (SHE) Specification to develop a suitable and sufficient H&S Plan, to be submitted to the client. The H&S plan shall be structured in accordance with the items as per this H&S (SHE) specification.

The Principal Contractor shall not commence work on site until the client has approved the H&S plan.

When a Principal Contractor intends appointing the principal contractor shall develop a contractor, the H&S specification and ensure that it is relevant to the scope of work of the contractor to be appointed.

The contractor shall not commence work on site until the principal contractor has approved the H&S plan.

#### **75. H&S File**

The H&S file shall be in accordance with the client requirements.

The H&S file shall be kept on site and available on request for audit and inspection purposes, and shall be handed over to the Client at the end of the contract in accordance with client requirements

The contractor shall prepare the records to be handed-over and save them on the USB (the records/documents shall be categorised as per checklist items) in accordance with TPD Handover Checklist, see Annexure J for Project Handover check sheet

Note: Selective hardcopies shall be part of the hand-over where specified.

#### **76. Hours of Work**

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

The Principal Contractor shall notify the client of any work that needs to be performed after hours according to the agreed arrangements. (The notification shall be submitted timeously).

Where applicable, the notification shall include proof of application for overtime to The Department of Employment and Labour and/or the letter of approval from the same department.

#### **77. Employees' right of refusal to work in an unsafe situation**

Refer to Eskom Procedure 240-43848327- Employees' right of refusal to work in an unsafe situation. The aim of the procedure is to ensure that an environment that promotes zero harm by empowering employees and contractors to take responsibility for their own safety and that of others.

#### **78. Contract Sign Off**

On completion of the project, all appointed contractors shall close out their project documentation and H&S Files and submit such to the Principal Contractor. The Principal Contractor shall likewise close out his/her project documentation and H&S files and handover it to the client.

*See Annexure J for Project Handover check sheet*

#### **79. Omissions of this H&S (SHE) Specification**

Eskom has endeavoured to address the most critical aspects relating to Health & Safety (SHE) specification issues in order to assist the contractor to adequately provide for the health and safety of employees on site.















Where Eskom has not addressed some aspects pertaining to the construction work tendered for, the contractor shall include it in the H&S plan and inform Eskom of such issues when submitting the tender.

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**Appendix A – Eskom Document Hierarchy**

 SHEQ policy.pdf	 20210617_Annexure C1 - High Risk_Evalu	 Annexure C_Appointments and
	 Annexure E_Monthly Statistics_Daily head	 Pre-task Planning.docx
 Annexure G_Extract from the NRTA	 Annexure H Initial Notification- Flash req	 Annexure I_Portable toilet specification
 Annexure J - Project Handover Record Ter	 Eskoms COVID-19 Health and Safety Po	 Site Readiness Evaluation Template
 20220330_Annexure B_ H&S Acknowldge	 Contractor Health and Safety Requiren	 20210520_TPD_SAC PCMP Letter-Registra

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