 Eskom	Specification	Medupi Power Station Project
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Title: **SHE Specification for Design and Construction of Drainage, Access and Terracing at the Ash Dump Workshop, Substation and Surrounds**

Document Identifier: **348-1030329**

Alternative Reference **Not Applicable**

Number:

Area of Applicability: **Medupi Power Station Project**

Functional Area: **Health and Safety**



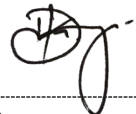

Revision: **1**

Total Pages: **118**

Next Review Date: **July 2025**

Disclosure

Classification: **Controlled Disclosure**

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Date: 13/07/2022	Date: 2022-07-15	Date: 2022-07-15	Date: 2022/07/18

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## **1. Introduction**

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

Zero harm is one of ESKOM values. The aim of Eskom's adoption of Zero Harm as one of its values is to strive to, and achieve world class safety, health and environmental performance, where all Guardians (employees and Contractors) return home safely every day and without harm done to the environment we operate in.

This SHE specification is Eskom's minimum requirements which are required to be met for the specific contract and for the duration of the contract period by the Contractors and where required, the delivery organisation.

The *Principal Contractor* and their *Contractors* are expected to develop a SHE plan which complies with these requirements as well as the relevant applicable legislation.

**Eskom in no way assumes the Contractor's legal responsibilities. The Contractor is and remains accountable for the quality and the execution of his/her health and safety programme for his/her employees and appointed contractor employees.**

This SHE specification reflects minimum requirements and should not be construed as all encompassing. This specification may not thoroughly address all hazards and aspects associated with any specialised activity or operation. In such situations, Contractors shall be responsible for developing their own health and safety plans/procedures/manuals/work instructions to adequately address their specialised activities and scope of operation.

## **2. Supporting Clauses**

### **2.1 Scope**

This specification sets out the minimum legislative and organisational requirements for all works at Medupi Power Station Project.

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### **2.1.1 Purpose**

Indicate to all potential types of Contractors the SHE requirements on the project, upon which their planning for the management of SHE will be based on and thus produce their SHE plan, Environmental Management Plans and related Procedures. .

All Contractors are required to execute their works in accordance with this document as well as other applicable legal documents.

### **2.1.2 Applicability**

This specification is applicable to all Principal Contractors, Contractors, Service Providers, Consultants and Suppliers in all the activities and processes carried out for and on behalf of Medupi Power Station Project.

For best practice reasons, where the work scope does not fall within the definition of Construction Regulations 2014, then this specification shall also apply as a minimum.

### **2.1.3 Effective date**

This specification shall be implemented from date of approval.

## **2.2 Normative/Informative References**

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

***Note: Where the date for revision of a document on the Eskom Document Centre website has passed, the document is still current, irrespective of its revision date having passed.***

### **2.2.1 Normative**

- [1] Basic Conditions of Employment Act No 75 of 1997;
- [2] Occupational Health and Safety Act and Regulations No 85 of 1993;
- [3] National Environmental Management Act 107 of 1998;

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- [4] National Environmental Management Waste Act 59 of 2008;
- [5] Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (COIDA);
- [6] National Road Traffic Act 93 of 1996;
- [7] National Water Act 36 of 1998;
- [8] Direction issued in terms of Regulation 4(10) of the Regulations made under section 27(2) of the Disaster Management Act, 2002: Measures to address, prevent and combat the spread of Covid-19 in certain workplaces in the Republic of South Africa. Consolidated Directions on Occupational Health and Safety Measures in Certain Workplaces (latest published direction);
- [9] 32-37 Eskom Substance Abuse Procedure;
- [10] 32-136 Contractor Health and Safety Requirements;
- [11] 240-62196227 Life- saving Rules;
- [12] 32-95 Environmental, Occupational Health and Safety Incident Management Procedure;
- [13] 32-727 SHEQ Policy;
- [14] 32- 418 Working at Heights Procedure;
- [15] 240-43848327 Employees' right of refusal to work in an unsafe situation;
- [16] 240-62946386 Vehicle and Driver Safety Management Procedure;
- [17] 32-93 Eskom Vehicle and Driver Safety Management;
- [18] 32-345 Eskom Vehicle Safety Specification;
- [19] 32-520 Risk Assessment procedure;
- [20] 32-124 Eskom Fire Risk Management;
- [21] 32-123 Emergency Planning;
- [22] 32-407 Behaviour Safety Observation Procedure;
- [23] 32-1126 Eskom Smoking Policy;
- [24] Plant Safety Regulations;
- [25] 348-860848 Medupi Environmental Policy

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[26] 348-717685 Procedure for the handling of HSE Non-conformities and Corrective and Preventive Action

[27] 348-882048 Medupi EMS Scope and Manual Rev7.final\_

### **2.2.2 Informative**

- [1] ISO 45001: Health and Safety Management systems – Requirements
- [2] ISO 14001:2015 Environmental Management Systems – Requirements
- [3] ISO 9001: 2015 Quality Management Systems – Requirements
- [4] Constitution of the Republic of South Africa No 108 of 1996;
- [5] SANS 1186 Symbolic Safety Signs;
- [6] Tobacco Products Control Act 83 of 1993;
- [7] All relevant South African legislation-provincial, municipal by-laws.

### **2.3 Definitions**

<b>Definition</b>	<b>Explanation</b>
<b>Agent</b>	Means a competent person who acts as a representative for a client.
<b>Aspect</b>	An element of an organisation's activity, product and service that can have a beneficial or adverse impact on the environment.
<b>Baseline risk assessment</b>	(32-520) baseline operational risks refer to the health and safety risks associated with all standard processes and routine activities in the business
<b>Business unit (BU)</b>	(32-296) means any defined unit within the Eskom environment, operating as a business under a particular cost-centre number. In the context of this document and in terms of health and safety, any reference to a BU includes a defined unit within any Eskom division and its subsidiaries

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<b>Definition</b>	<b>Explanation</b>
<b>Client</b>	Any person for whom construction work is being performed.
<b>Client Representative</b>	(OHS Act) Eskom representative (Internal – Asset Owner), also referred to as the contract administrator/custodian or agent or project manager (as defined in the contract). He/she is the person responsible for ensuring that the works or services are executed in terms of the contract, as well as adherence to legislation pertaining to the contract.
<b>Competent person</b>	(OHS Act) means any person having the knowledge, training, experience, and qualifications, specific to the work or task being performed, provided that, where appropriate, qualifications and training are registered in terms of the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995)
<b>Construction Health and Safety Agent (CHSA)</b>	Means a competent person who acts as a representative for a client as per the Construction Regulations (CR) of the Occupational Health & safety Act, No.85 of 1993, CR 5(6)(7) and the South African Council for the Project and Construction Management Professions (SACPCMP).
<b>Construction Manager</b>	Means a competent person responsible for the management of the physical construction processes and the co-ordination, administration and management of resources on a construction site.
<b>Construction site</b>	Means a work place where construction work is being performed
<b>Construction work</b>	Any work in connection with <ol style="list-style-type: none"> <li>the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure.</li> <li>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.</li> </ol>
<b>Consultant</b>	Means a person providing professional advice
<b>Contract</b>	Is an agreement with conditions between the Client and a Contractor where an adjudication authority has approved a scope of work to be completed in a specific time frame and within a specified value

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Definition	Explanation
<b>Contractor</b>	(OHS Act) means an employer as defined in section 1 of the Act who performs construction work and includes <i>Principal Contractors</i> . In relation to this document, where the word “ <i>Contractor</i> ” is used, it will mean all or some of the following: <i>Principal Contractors</i> , appointed <i>Contractors</i> , suppliers, vendors, service providers and consultants
<b>Controlled disclosure</b>	Controlled disclosure to external parties (either enforced by law or discretionary)
<b>Critical Lifts</b>	The following categories will be considered as a Critical Lift; (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, (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 and (7) night lifting.
<b>Designer</b>	Means any of the following persons: A competent person who: <ul style="list-style-type: none"> <li>• Prepares a design</li> <li>• Checks and approves a design</li> <li>• Arranges for any person at work under his/her control to prepare a design, including an employee of that person where he or she is the employer, or designs temporary work, including its components,</li> <li>• Is an architect or engineer contributing to, or having overall responsibility for, the design</li> <li>• A Building services engineer designing details for fixed plant</li> <li>• A Surveyor specifying articles or drawing up specifications</li> <li>• A Contractor carrying out design work as part of a design and building project, or an interior designer, shop-fitter or landscape architect.</li> </ul>

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<b>Definition</b>	<b>Explanation</b>
<b>Duty of care to the environment</b>	(32-136) anybody who causes or has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing, or recurring. If such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, such person must minimise and rectify such pollution or degradation of the environment
<b>Employee</b>	(OHS Act) means, subject to the provisions of subsection (2), any person who is employed by or works for an employer and who receives or is entitled to receive any remuneration or who works under the direction or supervision of an employer or any other person
<b>Employer</b>	(OHS Act) means, subject to the provisions of subsection (2), any person who employs or provides work for any person and remunerates that person or expressly or tacitly undertakes to remunerate him/her, but excludes a labour broker as defined in section 1(1) of the Labour Relations Act, 1956 (Act No. 28 of 1956)
<b>Environment</b>	(32-94) means: <ul style="list-style-type: none"> <li>a. the land, water, and atmosphere of the earth;</li> <li>b. micro-organisms and plant and animal life; and</li> <li>c. any part or combination of (a) and (b) and the interrelationships among and between them, and the physical, chemical, aesthetic, and cultural properties and conditions of the foregoing that influence human health and well-being</li> </ul>
<b>Environmental Management plan</b>	A detailed plan of action prepared to ensure that recommendations for enhancing or ensuring positive impacts and limiting or preventing negative environmental impacts are implemented during the life-cycle of a project. This Environmental Management Plan should preferably form part of Eskom's Environmental Management System
<b>Environmental Risk Assessment</b>	Means a systematic process of evaluating the potential risks that may be involved in projected activity or undertaking.
<b>Eskom requirements</b>	Eskom requirements flowing from directives, policies, standards, procedures, specifications, work instructions, guidelines, or manuals

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<b>Definition</b>	<b>Explanation</b>
<b>Fall protection plan</b>	(OHS Act) Means a documented plan which includes and provides for: a) All risks relating to working from a fall risk position, considering the nature of work undertaken, b) The procedures and methods to be applied in order to eliminate the risk of falling, and c) A rescue plan and procedures
<b>Hazard</b>	(OHS Act) means a source of, or exposure to danger
<b>Hazard identification</b>	(OHS Act) means 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
<b>Impacts</b>	Any changes to the environment whether adverse or beneficial, wholly or partial resulting from environmental aspects.
<b>Lifesaving Rules</b>	(240-62196227) a rule that, if not adhered to, has the potential to cause serious harm to people
<b>Medical Certificate of fitness</b>	Means a certificate valid for one year, issued by an occupational health practitioner, issued in terms of the regulations, whom shall be registered with the Health Professions Council of South Africa
<b>Medical surveillance</b>	Means 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
<b>Method statement</b>	Is a written document detailing the key activities to be performed, work procedures and sequences of operations in order to reduce, as reasonably as practicable, the hazards identified in any risk assessment
<b>On Site/Site</b>	Any workplace where the contractor or his employees performs contract related work.
<b>Organisation</b>	May be defined as a group of individuals (large or small) that is cooperating under the direction of executive leadership in accomplishment of certain common objects

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<b>Definition</b>	<b>Explanation</b>
<b>Permit to work</b>	Means a written declaration on the permit to work form, signed by the appointed person and issued to the responsible person in charge of the work, informing the latter that the plant to be worked on has been isolated as detailed.
<b>Planned Task Observation</b>	Is an independent observation made during the planned period in which the task is being executed.
<b>Pre-Task Risk Assessment/Daily Safe Task Instruction (DSTI)</b>	Means a meeting that is held prior to the commencement of the day's work and that is attended by all the relevant employees associated with the work task
<b>Principal contractor</b>	(In the text of this document) Means an employer, as defined in section 1 of the OHS Act, who intends to tender for or has signed a contract with Eskom for services rendered.
<b>Provincial director</b>	(OHS Act) means the provincial director as defined in Regulation 1 of the General Administrative Regulations under the Act
<b>Responsible Manager</b>	Is a Manager of a department, section or operating/business unit who has been appointed as part of the Eskom delegation of authority process with the aim to assist the applicable 16(2) assigned person in executing his/her duties in terms of the Occupational Health and Safety Act
<b>Responsible Person</b>	Means a person who has been authorised in terms of plant safety regulations to be responsible for ensuring that the work on the plant covered by a permit to work can be carried out and executed taking health and safety precautions into account and within the terms of these regulations.
<b>Risk</b>	The probability that injury or damage will occur.
<b>Risk assessment</b>	Means 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.
<b>Safety Health and Environmental file</b>	Means a file or other record in permanent form, containing the information on the SHE management system during construction including all information relating to construction phase after the handover to Client.

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<b>Definition</b>	<b>Explanation</b>
<b>Safety, Health and Environmental Plan</b>	Means a written plan that addresses hazards identified during the risk assessment process as well as the identified impacts in the SHE 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.
<b>Safety, Health and Environmental (SHE) Specification</b>	Including the base line risk assessment: means a documented specification of significant residual SHE requirements for a construction site, which a competent and resourced Principal Contractor or sub-contractor would not have been aware of. This is to ensure the health and safety of employees and the direct and indirect communities, as well as duty of care for the environment. The Client/Agent compiles the SHE specification which shall be specific to each construction project.
<b>Safety, Health and Environmental (SHE) requirements</b>	Means comprehensive safety, health and environmental requirements for a contract, project, site, and scope of work. These requirements are intended to ensure the health and safety of persons, both workers and the public, and the duty of care to the environment. The requirements must be specific to each contract, project, site, and scope of work.
<b>Safe Work Procedures</b>	Safe work procedures are 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.
<b>Service provider</b>	Any private person or legal entity that provides any service(s) to Eskom for compensation
<b>Site</b>	(34-228) means an Eskom department, unit, complex, building, specific project, work site, or the site where agents, clients, principal contractors, contractors, suppliers, vendors, and service providers provide a service to Eskom, directly or indirectly
<b>Subsidiary</b>	(32-94) an enterprise controlled by another (called the parent) through the ownership of greater than 50% of its voting stock

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<b>Definition</b>	<b>Explanation</b>
<b>Supplier</b>	(32-1034) means a natural or legal person who renders a service and may include the following current or potential supplier vendor, contractor, consultant
<b>Task</b>	(34-227) a segment of work that requires a set of specific and distinct actions for its completion
<b>The Act</b>	(OHS Act) means the Occupational Health and Safety Act No. 85 of 1993, as amended, and the Regulations thereto
<b>Visitor</b>	Any person visiting a workplace with the knowledge of, or under the supervision of, an employer.

## 2.4 Abbreviations

<b>Abbreviation</b>	<b>Description</b>
<b>ADF</b>	Ash Disposal Facility
<b>AIA</b>	Approved Inspection Authority
<b>AP</b>	Authorised Person
<b>ASIB</b>	Automatic Sprinkler Inspection Bureau
<b>CHSA</b>	Construction Health and Safety Agent
<b>COID Act</b>	Compensation for Occupational Injuries and Diseases Act
<b>CoC</b>	Certificate of Compliance
<b>CR</b>	Construction Regulations of the OHS Act
<b>DEL</b>	Department of Employment and Labour
<b>DMR</b>	Driven Machinery Regulations
<b>DSTI</b>	Daily Safety Task Instruction
<b>EA</b>	Environmental Authorisation
<b>EAP</b>	Employee Assistance Program
<b>ECO</b>	Environmental Control Officer
<b>EIA</b>	Environmental Impact Assessment

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<b>Abbreviation</b>	<b>Description</b>
<b>ELLS</b>	Electric Leak Location Survey
<b>EMC</b>	Environmental Management Committee
<b>EMP</b>	Environmental Management Plan
<b>EMS</b>	Environmental Management System
<b>EO</b>	Environmental Officer
<b>EP</b>	Emergency Preparedness
<b>ERfW</b>	Environmental Regulations for Workplaces
<b>GAR</b>	General Administrative Regulations
<b>GSR</b>	General Safety Regulations
<b>HCA</b>	Hazardous Chemical Agent
<b>HCS</b>	Hazardous Chemical Substances
<b>HIRA</b>	Hazard identification and risk assessment
<b>HS</b>	Health and Safety
<b>HV</b>	High Voltage
<b>ISO</b>	International Organisation for Standardization
<b>JSA</b>	Job Safety Analysis
<b>KKS</b>	Kraftwerk Kennzeichen System (translates German for Power Plant Classification System)
<b>LDV</b>	Light Delivery Vehicle
<b>LoGS</b>	(COID) Letter of Good Standing
<b>LTIR</b>	Lost Time Incident Rate
<b>LV</b>	Low Voltage
<b>MSDS</b>	Material Safety Data Sheets
<b>NM</b>	Near Miss
<b>NEMA</b>	National Environmental Management Act

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<b>Abbreviation</b>	<b>Description</b>
<b>NWA</b>	National Water Act (Act No. 36 of 1996), as amended
<b>OHNP</b>	Occupational Health Nursing Practitioner
<b>OHS</b>	Occupational Health and Safety
<b>OHS Act</b>	Occupational Health and Safety Act and Regulations, 85 of 1993
<b>ORHVS</b>	Operating Regulations for High Voltage Systems
<b>PPE</b>	Personal Protective Equipment
<b>PTO</b>	Planned Task Observations
<b>RoD</b>	Record of Decision
<b>RP</b>	Responsible Person
<b>RPO</b>	Radiation Protection Officer
<b>SABS</b>	South African Bureau Standard
<b>SACNASP</b>	South African Council for Natural Scientific Professions
<b>SACPCMP</b>	South African Council for the Project & Construction Management Professions
<b>SAMTRAC</b>	Safety Management Training Course
<b>SANS</b>	South African National Standard
<b>SAQA</b>	South African Qualifications Authority.
<b>SAQCC</b>	South African Qualification and Certification Committee
<b>SHE</b>	Safety, Health and Environment
<b>TETA</b>	Transport Education Training Authority
<b>WUL</b>	Water Use License

## **2.5 Roles and Responsibilities**

### **2.5.1 Commitment**

Visible commitment is essential to providing a safe work environment. Managers, supervisors and employees at all levels must demonstrate their commitment by being proactively involved in the day to day operations, in particular the Occupational Health and Safety aspects of any project /

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contract. Legislation and Eskom values requires that each employee must take reasonable care of themselves and their fellow workers, from management level down to the lowest employee level. Senior Management must provide strategic direction and demonstrate commitment in terms of SHE issues both on strategic level and operational level.

## **2.5.2 Client: Roles, Accountabilities and Responsibilities**

### **2.5.2.1 Eskom General Manager:**

The General Manager is responsible for the overall management of the project, including assurance that all duties of the employer as per OHS Act 85 of 1993 are properly discharged.

### **2.5.2.2 Eskom Contract Manager:**

The discipline/contract manager is responsible for managing the contract with the Principal Contractor and ensures that the SHE specifications are developed and issued with tender enquiries and that the Principal Contractor's SHE plan is approved prior to commencement of work. He must ensure that all the statutory requirements, Eskom and SHE specification and SHE plan requirements are adhered to by Principal Contractor and (if applicable) their Contractors at all times.

### **2.5.2.3 Eskom Engineering Manager:**

The Project Engineer is the person responsible for ensuring that the designer fulfils his professional and legal obligations with respect to the implementation of his design.

### **2.5.2.4 Eskom Health and Safety Manager/ Practitioner:**

The responsibility of the Health and Safety Manager/Practitioner is to provide assurance, as well as advice, assist and support to the Contract Manager in the management of the health and safety issues on the project which includes ensuring proper co-ordination amongst the various Contractors. The SHE Manager/Practitioner will also be responsible for assisting in the development of site and project specific SHE Specifications, and ensuring that SHE specification are issued with enquiry documents and that the Contractors SHE plans are submitted; evaluated

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and approved. She/he will be responsible for auditing and ensuring compliance to legal requirements.

#### **2.5.2.5 Eskom Environmental Manager/Officer:**

The responsibility of the Environmental Manager/Officer is to provide assurance, advice, assist and support to the Eskom Contract Manager in the management of the environmental issues on the project which includes ensuring compliance to the Record of Decision (RoD), the Environmental Management Plan (EMP) and Environmental Management Systems.

**Note:** This position may be a permanent position on the Project Organogram or it might be a service rendered by a line Division (which may be managed by a Service Level Agreement).

#### **2.5.2.6 Independent Environmental Control Officer:**

The Lead Environmental Control Officer (ECO) is appointed by the Environmental Monitoring Committee (EMC), in conjunction with Eskom, and acts on the behalf of the authorities to monitor environmental compliance and performance. The Project is answerable to the ECO for non-compliance with National Legislation, the Record of Decision, the Environmental Management Plan (EMP), and Environmental Performance Specifications.

#### **2.5.3 Designer: Roles, Accountabilities and Responsibilities**

A Designer is the person 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.

Designers should ensure compliance with the Occupational Health and Safety Act in terms of Construction Regulations of 2014, Regulations 6 and all other applicable Regulations, Standards and legislations.

The designer shall take into account the hazards associated with the future maintenance of the designed structure (s), and make provision in the design(s) for the necessary maintenance work to be performed such that the associated risks are minimised.

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Designers should ensure that when they design for construction work, they consider foreseeable health and safety risks during construction and eventual maintenance and cleaning of the structure in the balance with other design considerations, such as aesthetics and cost.

Inform the Construction Health and Safety Agent or representative (*Employer*) in writing of any known or anticipated dangers or hazards relating to construction work, and make available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered.

They should apply the hierarchy of risk control. This means designers need to identify the hazards inherent in carrying out the construction work and where possible alter the design to avoid them. If the hazards cannot be removed by design changes, the designer should minimize the risks and provide information about the risks that remain.

Make available in a report to *Employer*/ Construction Health and Safety Agent all relevant health and safety information about the design of the relevant structure, geotechnical science aspects where appropriate and the loading structure is designed to withstand.

They should describe any matters that require particular attention by a *Contractor*. Enough information should be provided to alert Contractors and others to matters which they could not be reasonably expected to know about.

Take into consideration and ensure compliance of health and safety specification.

In cases where Eskom uses overseas designers, the appointed designers must indicate and submit to Eskom the legislative requirements/documentation with which they comply in order to verify whether they meet the South African SHE legislative requirements.

An overseas designer can appoint a local designer to conduct the inspections required by the construction regulations.

Designers must communicate changes with the Project Manager, SHE Agent / Manager / Environmental Snr Advisor/Officer and Environmental Control Officer (ECO) on designs that affect environmental authorisations/approval issued. Final designs and layout maps must be approved by relevant Authorities before the commencement of construction.

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#### **2.5.4 Principal Contractor: Roles, Accountabilities and Responsibilities**

The Principal Contractor carries 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 No. 85 of 1993 and Regulations as well as all the Environmental Management requirements as per NEMA 107, of 1998 and related legislation. 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 have a disciplinary process and an organisational structured procedure to deal with employees who have transgressed organisational and legal requirements.

The Principal Contractor shall provide a list of names and contact numbers of all his employees as well as the contractor employees on site. This list shall be updated as and when new employees commence on site.

The Contractor 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 filed in the OHS File.

Every employee must undergo site induction provided by the Client before commencement of the contracted work. Only once this induction has been received, will each employee receive a site access permit.

The Principal Contractor shall ensure that his managers and supervisors give clear and unambiguous instructions for the work in hand to the personnel for whom they are responsible for.

**The instructions shall include, but not necessarily be limited to the following:**

- Description of the objective/scope of work;
- Sequence of work/method statements;
- Hazard identification and risk assessment (prior to commencement of work);
- Precautionary/preventative measures that are to be taken;
- Identification of sensitive features that may be impacted upon by the project.

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**The Principal Contractor shall take note of the following with regard to DSTI's/JSA:**

- No generic hazard and risks will be accepted on DSTI's;
- DSTI'S need to be amended once the work activity has changed as planned for the day;
- DSTI's to be compiled and conducted at the work place and not in offices, same applies to records thereof;
- Ensuring the DSTI's are discussed with the workforce. Supervisors to strongly enforce expected safety behaviours to the workforce. Supervisors and Safety Officers (Principal Contractors and Eskom) to sign and acknowledge that the DSTI was checked for quality and correctness;
- Supervisors and Safety Officers (Principal Contractor's and Eskom) shall monitor to ensure compliance and where applicable Safety Officer's to coach supervision accordingly;
- No work shall be done unless DSTI/JSA has been presented and signed by all team members. All employees have a right to stop any work or refuse to work if the risks and hazards are not properly identified and/or controlled effectively.

Employees are responsible for their own health and safety and that of their co-workers in their respective areas of work on the project.

**Employees 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;

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- Declaring to the employer if taking medication which may have intoxicating effects;
- Use the protective clothing and equipment prescribed for your job, in a proper manner. This should be addressed during the daily safety task instruction;
- Follow the instructions given by your Supervisor/Manager or inform him/her of the reason if it is not possible to do so;
- Before attempting something new or different discuss it with your Supervisor/Manager to avoid causing an incident;
- Maintain the tools in safe condition and turn in defective tools to the Supervisor/manager;
- If you have to climb, ensure that the ladder you use is not broken and has (non-slip) safety feet and also that it is not used when working on electricity installation due to the very high risk of electrocution. Make sure that one person is holding the ladder for you. Apply three-point-contact at all times;
- Refrain from cleaning up or performing any work on, or close to unguarded machinery until you have properly locked the electrical switches or know that your Supervisor has done so. (Refer to the Permit to work);
- Refrain from stepping onto a stopped conveyer belt or attempt to work in any place where you could be injured if the machinery started up. You will first make sure that the machinery is locked-out;
- Refrain from attempting to operate any vehicle or other machinery that you have not been trained for or been authorized to operate by your Supervisor/manager;
- Refrain from running or hurrying down stairs or jump off a high place - knowing the high injury risk;
- Refrain from engaging in teasing, jostling, mock sparring or throwing objects, even playful as such actions could lead to injury to you and/or others;
- Use compressed air only for work purposes, knowing that playful use or blowing off work clothes can cause very serious injury;

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- Keep the work area reasonably clean and orderly and immediately clean up any spills or tripping hazards;
- Familiarize yourself with the Safe Work Procedures and Method Statements prior to starting with a task;
- Place waste in the waste receptacles provided for it;
- Report any pollution or spillage to your supervisor – including leaking water taps;
- Refrain from wasting energy or any resources in order to promote environmental sound practices;
- Support all health and safety programs, and safety and environmental policy including the lifesaving rules and.
- If an employee has a reasonable belief that the work to be undertaken is likely to endanger him/her or any other person/s due to sub-standard acts or conditions, inadequate precautions or a lack of protective equipment or clothing, he/she has the right to refuse to work and shall report such situation to the employer;
- An employee does have the right not to work in any area or perform any task where that employee has reasonable justification to believe that the work situation presents a serious danger to his/her health and safety, organizational assets or the environment.
- It must be highlighted to all employees, that anyone who becomes aware of any person disregarding a health & safety notice, instruction or regulation shall immediately report this to the person concerned. If the person persists, stop the person from working and report the matter to the Principal Contractor Supervisor/ Construction Manager and the Eskom Contract/Project Manager immediately.

#### **2.5.4.1 Management and Supervision of Construction works**

The Principal Contractor shall ensure that the performance of all specified work is managed and supervised in accordance with the requirement of OHS Act CR 8 throughout the contract period.

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The Principal Contractor and contractor(s) shall ensure that the performance of all specified work is supervised throughout the duration of the contract by a sufficient number of competent appointed person, who have experience in the type of work specified.

No work shall commence and / or continue without the presence of an appointed Construction Manager, Construction Health & Safety Manager/Officer, Construction Supervisor or Assistant Construction Supervisor as per Construction Regulation requirements during execution of the work. These supervisors shall be fluent in the language for communications as defined under the Contract.

The Principal Contractor and contractor must ensure that resourcing is in accordance with Project Plan and Schedule for life of work. An estimation of key activities is required to be identified for the life cycle of the project and resource plan requires aligning accordingly. The number of appointed persons shall be determined by the size and the risk of the project.

All work to be supervised (regardless of permit to work applicable or not) Employees to be aware of the where about of their Supervisors at all times.

Recommended ratio of a supervisor versus employees is 1:15/20.

#### **2.5.4.2 Health and Safety Professionals (Manager/Officer)**

The Contractor shall appoint Health and Safety Professionals (Manager and/or Officer(s)) considering the nature and the scope of work being performed in accordance with the requirement of CR 8 (5 & 6).

The Health and Safety Practitioners shall be registered with the SACPCMP and have a minimum qualification of a National Diploma in Safety/Environmental.

**Note:** In cases where a Construction Health and Safety Manager is appointed, it would be desirable if he/she is also registered with SACPCMP even though it is not a legal requirement.

#### **2.5.4.3 Construction Environmental Personnel**

The Principal Contractor and contractor shall appoint relevant Environmental personnel as per EMP /ROD requirements considering the nature and the scope of work being conducted.

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### **2.5.5 Appointment of a Principal Contractor**

The Principal Contractor will be appointed by Eskom responsible Manager on the awarding of the contract and shall be responsible and accountable for all legislative and Eskom requirements for the duration of the contract.

Principal Contractor shall not commence with the project work until such times as he/she has been appointed in writing in terms of OHS Act Construction Regulation 5(1) (k), by Eskom responsible Manager.

Construction Regulation 5(1) (k) appointment shall be kept in the safety file.

### **2.5.6 Appointment of Contractors**

The Principal Contractor may appoint contractors to assist in the contract. All appointments shall be done in writing and will form part of the SHE file. Adequate training and instruction must be given to the appointees and the Principal Contractor must ensure that all appointed contractors understand their roles and responsibilities.

The Principal Contractor shall when selecting contractors to assist on the project carry out a selection process, and vet potential contractors. Once the selection process is completed, then such contractors shall be appointed in writing for a specific scope and for the relevant period as required.

Contractors shall not commence with any part of scope of work until such times as he/she has been appointed in writing in terms of OHS Act Construction Regulation CR 7(1)(c)(v), by Principal Contractor.

### **2.5.7 Principal Contractor Accountability to their Contractors**

The accountability of the Principal Contractor to their contractors are as follows:

- In the event that the Principal Contractor needs to introduce a new contractor, the Principal Contractor must first inform the Client. Such contractors must, in every respect, meet the Client's SHE requirements;

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- Should the Principal Contractor appoint a contractor, the Principal Contractor would then have the same role and responsibility in relation to the contractors, in a similar way as the Client has in relation to the Principal Contractor;
- The Principal Contractor is directly 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 the contractors appointed 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 documented SHE specification, who would in turn provide the client/agent with a SHE plan for review;
- The Principal Contractor shall carry out audits on the contractor at least monthly to ensure that their SHE 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 SHE plan;

## **2.6 Related/Supporting Documents**

Eskom OHS Act section 37 (2) agreement to be signed at procurement during the signing of the NEC contract, it is the responsibility of the project manager to ensure that the 37(2) agreement is signed and a copy be kept in the contractor file at procurement.

## **3 Specification**

### **3.1 Scope of work**

**Location:** Medupi Power Station Project, Lephalale, Limpopo Province.

**Project description/detailed scope of work:** Medupi Power Station Project is a coal-fired power station and a National Key Point situated near Lephalale in Limpopo Province. The project is a

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construction site for a coal-fired power station with six units, which will generate a total capacity of 4800MW of electricity. All six units are in commercial operation and the focus is on completion of Balance of Plant works/activities.

The scope of work is for the Design and Construction of Drainage, Access and Terracing at the Ash Dump Workshop, Substation and Surrounds. The Medupi Ash Dump Workshop has experienced inadequate drainage with water ponding near the facility that has compromised access to the workshop. Generation has raised a concern regarding the current suitability of the drainage in the area and requested remedial measures be undertaken to correct the ponding water.

The Employer, Eskom SOC, had previously entered into a professional engineering services contract for the design, construction monitoring, professional certification, technical assurance of construction works, and provision of end of construction documentation i.e. as built documentation and Professional Engineering Certificates (PEC's) for the Medupi Ash Dump Workshop, stormwater drainage, access and terracing. The professional engineering services contract between the Employer and the originally appointed designer has ended. This has left the Employer with incomplete works.

This scope aims to complete the outstanding work to allow for adequately function drainage and access to the Ash Dump Workshop and Substation.

The Employer has resolved to issue the existing designs as conceptual designs to the open market and invite all interested parties to provide professional design and construction services for the works.

All Registered Professionals shall execute their services in accordance with the ECSA Code of Conduct

Contractor's Designer shall (not limited to):

- a. The Contractor shall use the Employers Design in the form of construction drawings as a basis/departure for their detailed design. The detailed design was completed by original consultant around 2014 and as such the contractor shall make provision for review and/or modification and/or adopt (as applicable) to the extent necessary to assume professional design liability for the existing designs. Any changes to the Employers design must be motivated to The Employer. Design liability shall be with the Contractor (design consultant).

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- b. The Contractor is responsible for progression the existing design information presented in the “Employer’s Design Drawings” section of this document into a fully integrated detailed design. The existing designs interface with existing infrastructure and operation and as such the contractor shall consider as far as reasonably practicable the prevailing site constraints and conditions.
- c. The Contractor’s design consultant shall be liable, fully accountable and assume the role of designer as defined in Construction Regulations for the design and the constructability of the design submitted to the Employer.
- d. Provide design assurance and design verification on existing designs and make the necessary amendments.
- e. Attend meetings with the Employer’s Engineering team
- f. Provide construction monitoring services of the works including but not limited to the points below:
- g. Carry out sufficient inspections at appropriate times of the construction work in order to ensure compliance with their design, to ensure design assumptions are valid and that work being executed in accordance with appropriate construction techniques.
- h. Assist the Employer with design and construction integration issues pertaining to the scope of works
- i. Provide technical assurance during project life cycle including but not limited to review and approval of construction quality assurance and control documentation
- j. Final site inspection on completion of the works prior to issuing a completion certificate.
- k. Review and acceptance of construction data books
- l. Provide as built documentation including but not limited to drawings for various structures
- m. Issue Professional Engineering Certificates, by an ECSA registered Engineer or Technologist with relevant experience and qualifications in their specific fields of expertise.
- n. The Contractor shall adhere to all applicable Normative and Informative documents as per Section 2.2 of this document including other relevant applicable documents.

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Contractor's Construction team shall:

- a. Construct the work (procure, supply, install and commission), as per the approved construction drawings, applicable specifications and the latest addition of the Construction Regulations
- b. Provide material required to complete the works
- c. Remove superfluous material from the works
- d. Perform all specified quality assurance and quality control tests and submits to the Engineer for acceptance
- e. Provide all plant and other tools to complete the works
- f. Provide data book records as required in this SOW

### **3.2 Legal Compliance**

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

A section 37(2) agreement must be signed between Eskom and the principal contractor at the time of awarding the contract. The principal contractor must ensure that a section 37(2) agreement is compiled between the principal contractor and all their appointed contractors for the contract.

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

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

#### **3.2.2 Hazardous work by children (Child Labour)**

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

*17. being protected from exploitative labour practices;*

*18. not to be required or permitted to perform work or provide services that*

*i. are inappropriate for a person of that child's age; or*

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*ii. place at risk the child's well-being, education, physical or mental health or spiritual, moral or social development and the Basic Conditions of Employment Act, Chapter six Section 43 "Prohibition of employment of children".*

Before resorting to the use of child labour, due consideration must be given to the rights of the child in terms of the constitution. Where work is being performed which is not prohibited in terms of the constitution, then such work must be conducted in terms of the OHS Act "Regulations on Hazardous Work by Children in South Africa" with emphasis on paragraph 2 Purpose and Interpretation. Eskom does not condone the use of child labour and therefore all effort must be exercised and child labour should not be used.

### **3.3 OHS Act**

The principal contractor and appointed contractors shall have an up to date copy of the OHS Act and Regulations at all work sites which will be available to all employees (GAR 4).

### **3.4 Legislative compliance**

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

- The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights);
- Occupational Health and Safety Act 1993 (Act 85 of 1993) and its Regulations;
- National Environmental Management Act 1998 (Act 107 of 1998);
- National Environmental Management: Waste Act (Act No. 59 of 2008);
- Environment Conservation Act 1989 (Act 73 of 1989);
- National Water Act 1998 (Act 36 of 1998);
- National Road Traffic Act 1996 (Act 93 of 1996);
- Compensation for Occupational Injuries and Diseases Act 1993 (Act 130 of 1993) (COIDA)

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- Disaster Management Act 57 of 2002: Regulations issued in Terms of Section 27(2) of the Act;
- Any other applicable South African legislation;
- Applicable South African National Standards (SANS) - Contractor shall use the relative standards applicable to the project;
- Local Authority By Laws.

It is the duty of the Principal Contractor and contractor to ensure that they are familiar with the necessary SHE 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 or as when required.

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

**Note:** When there is an amendment to the Acts and/or to the Regulations, the SHE plan must be reviewed, updated accordingly and send through to the client. Changes must be communicated to all relevant employees.

### **3.5 Eskom Requirements**

All contractors shall, before commencement of the project ensure that all their employees are familiar with the relevant Eskom SHE documentation that is applicable to contract services.

### **3.6 Eskom Life-saving Rules**

Eskom views health and safety in high esteem and encourages that any organisation who performs work for Eskom in Eskom adopt the same view.

Five Life-saving rules have been developed that will apply to all Eskom Employees, agents, consultants, and **contractors**. Failure to adhere to these rules by any Eskom employee or employee of a Principal Contractor or appointed contractor will be considered a serious

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transgression. These rules are being implemented to prevent serious injury or death of any employee, labour broker or contractor working in any area within Eskom.

If any contractual work will be performed on any Eskom premises (including delivery of any product), then the rules **shall be obeyed** by any contractor and their employees.

The rules are:

Rule 1	<p><b>OPEN, ISOLATE, TEST, EARTH, BOND AND/OR INSULATE BEFORE TOUCH</b></p> <p>Any person who performs work on an electrical installation shall ensure that it is isolated, tested and earthed before starting any work. (That is plant, any plant operating above 1000 V)</p> <p>No person may work on any electrical network unless:</p> <ul style="list-style-type: none"><li>• He / she is trained and authorised as competent for the task to be done.</li><li>• A pre-task risk assessment to identify all risks and hazards must be conducted prior to any work commencing.</li><li>• An equi-potential zone is created for each worker on the job site by earthing, bonding and/or insulating according to approved divisional procedures.</li><li>• All conducting material is connected together, all staff onsite wear electrical safety shoes and insulating techniques are applied according to standards.</li><li>• The authorised person (Team leader) has certified and shown all team members that the apparatus is safe to work on. He / she is trained and authorised as competent.</li></ul>
Rule 2	<p><b>HOOK UP AT HEIGHTS</b></p> <p>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/she exposes himself/herself to a fall from or into. A pre-task risk assessment to identify all risks and hazards must be conducted prior to any work at height commencing.</p>
Rule 3	<p><b>BUCKLE UP</b></p> <p>Seatbelts shall be used at all times whilst driving. No person may drive any vehicle on Eskom business and/or on Eskom premises: Unless the driver and all passengers are wearing seat belts.</p>

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Rule 4	<p><b>BE SOBER</b></p> <p>No person is allowed to be under the influence of intoxicating liquor or drugs while on duty.</p> <p>Under-the-influence' means the use of alcohol, drugs and /or a controlled substance to the extent that:</p> <ul style="list-style-type: none"><li>• The individuals faculties are in any way impaired by the consumption or use of the substances or;</li><li>• The individual is unable to perform in a safe, productive manner or;</li><li>• The individual has a level of any such substance in his body that corresponds with or exceeds accepted medical/legal standards or;</li><li>• The individual has a level of alcohol in his body that is greater than 0,00 % blood alcohol concentration.</li><li>• Any level of an illegal substance in the body' irrespective of when the substance was used</li></ul>
Rule 5	<p><b>PERMIT TO WORK</b></p> <p>Where an authorisation limitation exists, no person shall work without the required Permit to Work (PTW).</p> <ul style="list-style-type: none"><li>• Work is as defined in the Plant Safety Regulations (OHS) and Operating Regulations for High Voltage Systems (ORHVS) of Eskom.</li><li>• A Risk Assessment must be carried out jointly by the Authorised (AP) and Responsible Person (RP) on all work before it commences.</li><li>• The PTW must be issued by an AP, in accordance with the PSR.</li><li>• The PTW must be accepted in writing by an authorised RP.</li><li>• The PTW shall be shown to everyone working on the job and the risks explained.</li><li>• The RP must ensure that all staff working on that job are entered on a Workers' Register and the risks explained to each one.</li><li>• The RP must ensure that the conditions of the PTW are enforced for the duration of the work.</li></ul>

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

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

This is to ensure that **every person** who works on or visits an Eskom site, **returns home safely to his or her family**.

### **3.7 Notification of Construction Work**

The Principal Contractor shall notify the relevant Provincial Director of the Department of Employment and Labour of the intention to carry out any construction work as defined in the Construction Regulation 4 of the OHS Act, at least 7 days before construction work is to be carried out.

The notification form of construction work is listed as an annexure 2 to the Construction Regulations of the OHS Act.

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

### **3.8 SHE/SHEQ policy**

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

Eskom has a SHEQ Policy (32-727, Appendix A) that clearly states the policy principles by which Eskom operates and the commitment to SHEQ excellence and is authorised by the Chief Executive.

Principal Contractor and the contractors shall support Eskom SHEQ policy.

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Eskom SHEQ Policy will be handed to the Principal Contractor when site establishment is completed. A toolbox talk shall be done with all the employees on site and attendance register shall be sent to the Contracts Manager and then filed in the SHE File.

The Principal Contractor and the contractor companies shall each have a SHEQ Policy duly signed and authorised by their Chief Executive (OHS Act Section 16(1) appointee) that clearly states overall SHEQ objectives and commitment to improving Safety, Health, Environment and Quality performance and must be displayed and shared with all stakeholders. It should also include the description of the organisation scope and the arrangements for carrying out and reviewing such policy.

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

The Contractor shall be registered with an appropriate employment compensation commissioner or a licensed mutual company or an equivalent of it (for international bidders). This cover shall remain in force during the contract and shall be the responsibility of the Contractor to ensure validity. Contractor must submit proof of a valid registration through a certificate of good standing with the compensation fund or a licensed compensation insurer and ensure that all payments due to the Commissioner are discharged. The Letter of Good Standing shall reflect the name of the Contractor.

**Note:** For international suppliers, the equivalent from the country of origin of the supplier. For a supplier whose country does not issue such certificate equivalent to COID, the relevant legislation must be submitted. However, if the supplier has offices in South Africa and has employed South African citizens, a COID certificate must be submitted.)

### **3.10 Construction Professional Registration**

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

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

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- SHE professionals (which include Construction Safety Officers) are required to register as professionals with the SACPCMP.
- Construction Managers are required to register as professionals with the SACPCMP.
- Construction agents are required to register as a professional with the SACPCMP.

### **3.11 Costing for SHE within the Project**

The Principal Contractor/contractor shall ensure that the submitted tender adequately made provision for the cost of Health, Safety and Environmental measures.

Note: the costing for SHE must be itemised based on the overall scope of the project (i.e.) Training, provision of PPE, safety equipment purchases, medical surveillance (medicals), covid-19 compliance occupational health programmes and occupational hygiene surveys etc.

### **3.12 Appointments, Competencies and Training**

For the duration of the contract, the principal contractor and all appointed contractors shall appoint competent employees who will meet the requirements of the OHS Act. Where appointments are made, contractors shall ensure that the appointees have been suitably trained and or informed of their responsibilities before getting them to accept such appointment. The relevant statutory appointments shall be made in accordance with the requirements of the OHS Act which includes the requirement of a competent person being appointed in the relevant roles.

The Contractor need to ensure that the resources to work on the project have the required related training, knowledge and experience specific to the scope of work/services.

The appointments should include, but not limited to the following:

<b>Statutory appointments</b>	
<b>Reference</b>	<b>Description</b>
OHS Act, Section 16(2)	Persons assigned functions to assist the Chief Executive Officer (if required)

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OHS Act, Section 17	Health and Safety Representative
OHS Act, Section 19	Health and Safety Committee Member - Chairperson appointment (if there are 2 or more H&S reps there will be a H&S committee).
OHS Act, Section 19(6)(a)	Co-opted Health and Safety Committee member
OHS Act, General Administrative Regulation 9(2)	Incident / Accident Investigator
OHS Act General Safety Regulations 3(4)	First Aider/s
OHS Act, Electrical Machinery Regulation 9	Portable Electrical Equipment Inspector
OHS Act General Machinery Regulation 2(1)	Supervision of Machinery
OHS Act Construction Regulation 8(1)	Construction manager appointed by the Contractor's OHS Act Section 16(2) assignee
OHS Act Construction Regulation 8(2)	Assistant Construction Manager appointed by the Contractor's OHS Act Section 16(2) assignee
OHS Act Construction Regulation 8(5)	Construction Health and Safety Officer
OHS Act Construction Regulation 8(7)	Construction Supervisor appointed by the Contractor's OHS Act CR 8(1) assignee
OHS Act Construction Regulation 8(8)	Assistant Construction Supervisor
OHS Act Construction Regulation 9(1)	Person to Compile Risk Assessments

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OHS Act, Construction Regulations 11(1)	Person to Supervise Excavation Work
OHS Act, Construction Regulations 16(1)	Scaffolding Supervisor
OHS Act, Construction Regulations 23(1)(d&k)	Construction Vehicle and Mobile Plant Operator & Inspector
OHS Act, Construction Regulations 24(c&d)	Competent Person for Temporary Electrical Installation Control and Inspections
OHS Act, Construction Regulations 24(e)	Electrical Machinery Inspector
OHS Act, Construction Regulations 28(a)	Competent Person for Stacking and Storage Supervisor
OHS Act, Construction Regulations 29(h)	Competent Person as Fire Fighting Equipment Inspector
DMA (Sec 27(2))	Covid-19 compliance officer
<b>Non-statutory appointments</b>	
Eskom Requirement	Emergency Planning Co-coordinator
Eskom Requirement	Fire Official
Good Practise	Hand tools inspector
Good Practise	PPE Inspector

**Notes to the appointments listed above:** Section 16(1) creates a legal presumption, and therefore no appointment is required. The Contractor shall provide the full names, contact telephone number and business address of the Chief Executive Officer.

### **3.13 Contractor organisational Structure**

#### **3.13.1 Principal Contractor Organogram**

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The Principal Contractor is required to compile their organisational organogram for the contract, with a proposed OHS resource plan, highlighting the reporting structure from their Senior Management (Chief Executive) down to their project employees. For each position, stipulate the position titles, names of appointees, qualifications and competencies. The principal contractor must ensure that all appointed contractors comply with this requirement.

All organograms' shall be updated timeously when appointments are changed and filed in the project SHE file. The organogram must be kept up to date, a copy of which must be given to the client and copy filled in the relevant project SHE files. The Principal Contractor is responsible for submitting updated copies of all of the organograms' as well as those of their appointed Contractors/suppliers, to the Client.

### **3.13.2 Appointed Contractor/s Organogram**

Appointed contractors are required to compile their company organogram for the project, listing the reporting structure from their CE down to their project supervisors. The diagram must list the names, positions held and any appointments made.

This diagram must be kept up to date, a copy of which must be given to the principal contractor and a copy filed in the relevant project SHE files.

## **3.14 Safety Culture**

Eskom drive a safety culture of Zero harm. Zero harm means ensuring that the Eskom operational activities do not inflict harm on Eskom assets, its employees, contractors and members of the public affected by its operations, environment in terms of its environmental obligation. Zero harm is a value which Eskom will strive towards operating within its compliance obligation, continual improvement against set intended outcomes and reduction of its environmental footprint by avoiding incidents

Zero harm is the first of our Eskom values, and a top priority in our business.

Eskom thrives to ensure that zero harm befalls its employees, contractors, the public and the natural environment:

- Zero Fatalities

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- Zero Injuries
- Zero environmental incidents
- Zero Tolerance
- Zero Defects

Principal Contractors shall demonstrate in health and safety plan compliance to Eskom drive to Zero harm.

The following safety culture interventions are implemented across site and it is required that all contractors participate in:

- Safety stand downs
- Management Plant Walk about (VFL)
- SHE campaigns
- Rewards and discipline strategies and procedures to encourage appropriate SHE behaviours.

### **3.15 Behavioural Based Safety Observation (BBSO)/Visible Felt Leadership (VFL)**

Contractor shall incorporate BBSO or VFL programmes within their Health and Safety Management System.

The objective of behavioural safety observations is 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 personnel. (Refer to Eskom Behavioural Safety Observations procedure 32-407).

### **3.16 Substance Abuse**

Alcohol and substance abuse poses a significant threat to any business, more so in industrial incidents and the driving of vehicles. Eskom is therefore, entitled to take reasonable steps to ensure that intoxicated persons are identified and prevented from entering Eskom.

General Safety Regulation 2A is clear on the legal stance regarding intoxication.

The alcohol and drug permissible level is 0%.

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All contractors shall comply with Eskom's procedure 32-37 ("Substance Abuse Procedure"), taking in to account that this is an Eskom Life-saving Rule number 4: BE SOBER"), this means anyone entering the Eskom site will be subjected to ad hoc alcohol testing.

Contractors are encouraged to compile their own manual and to carry out regular alcohol testing of their own employees. Test records must be treated as "Confidential" and filed in the employees' personal file.

### **3.17 Smoking**

Smoking is only permitted at designated areas in accordance with the requirements of the smoking policy (32-1126: Eskom Smoking Policy). Smoking is not permitted indoors, at entrances to buildings or near air intake systems in accordance with Eskom Policy and legislation requirements.

### **3.18 Cellular Phones**

A contractor shall develop and implement a risk based cell phone policy for their works areas. All cell phone users on site, will be authorised and proof of authorisation to be carried by employees at all times. Disciplinary action shall be followed in case of any non-compliance.

Do not use Cellular phones in areas where cell phone usage is prohibited. Texting and talking on the cell phone whilst driving and walking is prohibited.

### **3.19 Occupational Health, Hygiene and Rehabilitation**

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

#### **3.19.1 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 should include, but not be limited to the following elements:

- Occupational health risk assessment as a background;

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- Occupational health risk exposure profiles;
- Occupational hygiene monitoring program and ensure that monitoring is performed by an approved Inspection Authority;
- Communication of occupational hygiene results and requirements;
- Proof of awareness training and;
- Documentation and control of records (Records to be kept for 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 and;
- Heat Stress Management Program.

**Identification:** The Contractor shall identify the occupational stressors which could include exposure to chemical and biological hazards, noise, dust, vibration, heat, etc., to which any person may be exposed as a result of his work activities.

**Risk assessment:** Once the occupational stressors have been identified the risk shall be assessed in accordance with statutory requirements including manual handling, including the nature of the stressor, the work process, the exposure severity and duration, possible adverse effects etc.

**Control measures:** The Contractor shall provide details of all control measures that shall be implemented to eliminate or reduce exposure to occupational stressors. Where mechanical means are employed he shall provide details of how these shall be maintained to ensure that they operated at maximum efficiency.

**Monitoring:** The Contractor shall provide and adhere to effective monitoring procedures. These procedures shall include the planning, carrying out and recording of the results of the measurement programme. This is to confirm the effectiveness of the implemented control measures and the results shall be made available to the Engineer on request.

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

Copies of all occupational hygiene surveys conducted by the Principal Contractor and contractor must be submitted to the Eskom Health and Safety manager and Occupational Hygiene practitioners. The SHE Manager / Practitioner shall establish a database of contractor occupational hygiene surveys and corrective plans.

### **3.19.2 Employee Health and Wellness Programme**

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

### **3.19.3 Medical Surveillance Programme**

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

The Principal Contractor shall ensure that his employees and contractor employees are registered on a medical surveillance programme and are in possession of a valid medical fitness certificate in annexure 3 format. The certificate of fitness should be relevant to the type of work (risk based) that the employee will be exposed to. This will require each employee to have a risk based person job specification that will be used as a basis for medical examination.

The Principal Contractor must ensure that his employees and contractor employees have undergone pre-entry medical examination before starting work on site, ***no employee will access site without a valid medical fitness certificate.***

The fitness certificate and a copy of the risk based person job specification shall be issued before commencement of work and shall be presented at induction. If the Principal Contractor does not provide proof of valid certificates of fitness and person job specifications for his employees and contractor employees, then Eskom will not give those employees site induction which will result in refusal to site access.

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The certificate shall be renewed as required by the risk profile. On completion of the project an exit medical examination shall be conducted, unless otherwise advised by the Occupational Health Practitioner.

**Contractors to take note of the following:**

- Principal contractors must ensure that their employees and their appointed contractor employees have a medical surveillance program whereby their employees undergo entry, periodic and exit medical fitness examinations.
- In order for the appropriate medical examinations to be conducted, each employee must have a man job specification, which must indicate the description of work, list of hazards and potential occupational exposure limits, physical hazards and required physical attributes.
- Medical fitness certificates shall be renewed annually for employees who are working on site. This shall be maintained until completion of the contract.
- The Principal Contractor must ensure that his / her employees and appointed contractor employees have undergone pre-entry medical examination before starting work on the contract.
- The principal contractor shall provide a documented process for managing those employees who are issued with a conditional certificate of fitness.
- All employees shall be issued with the required medical records to prove medical status at the time of exiting the construction project.
- In instances where sick leave is taken for a period of one week or more, the contractor shall institute an arrangement that employees need to sign a declaration indicating that they did not suffer any illness or injuries which occurred in the period of absence, which may affect their ability to work on site.

**3.19.4 Employee Assistance Programs (EAP)**

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Where Principal Contractors and contractors do not have EAP Principal Contractors, then Eskom's EAP Service Provider is available to provide assistance. All costs shall be borne by the Principal Contractor.

### **3.19.5 Rehabilitation**

Where any contractor's employee is injured at work to the extent that they require rehabilitation, then this must be given, using the services of an appointed rehabilitation organisation.

### **3.19.6 Health Pandemics and Disaster Management**

The Contractor shall ensure proper management and control of any disaster and or pandemics that may come forth during the course of the contract.

The Contractor shall ensure compliance to all COVID-19 regulations and requirements. A COVID-19 Management plan and risk assessment should be conducted and appropriate measures taken to minimise exposure to COVID-19. Any new developments regarding COVID-19 and latest updates should be communicated to the employees and visitors to raise awareness.

### **3.20 Emergency Care (First Aid)**

A list of emergency numbers must be displayed at notice boards and public areas for ease of access to all employees and visitors. The Contractor shall ensure that his employees are familiar with the emergency numbers. Emergency numbers will also be part of the OHS induction.

Contractor shall have one first aid box for the first five (5) persons and thereafter one for every 50 or team of workers on site or part thereof. There should be a trained and appointed person to render first aid service when required. The first aider(s) shall be in possession of a first aid level two (2) training as minimum requirement as per Eskom Emergency planning procedure 32-123.

More first aid boxes shall be provided if the risks, distance between work teams or workplace requirements require it (it should be available and accessible for the treatment of injured persons at that workplace).

Minimum contents of a first aid box: (Refer to GSR 3 Annexure of the OHS Act). A content check list must be available with all boxes and boxes shall be checked on a regular basis, kept clean and dust free.

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A prominent notice or sign shall be erected in a conspicuous place at a workplace (SANS1186 approved signs to indicate location of first aid boxes), indicating where the first aid box or boxes are kept as well as the name and contact details of the First Aider of such first aid box or boxes.

**Contractors to take note of the following:**

- The requirements of the OHS Act GSR 3 must be observed.
- First aid appointments must be made to meet the requirements, this includes construction sites. Appointees must be trained to level 2. It is good practice for all employees to be trained to at least level 1.
- When appointing employees for work sites, cognisance must be taken into account the type of work performed, the distance teams are working apart and the terrain to be covered if an emergency should arise.
- For offices, signs indicating where the first aid box or boxes are kept as well as the name and contact details of the First Aider of such first aid box or boxes shall be erected.
- The Principal Contractor and appointed contractor shall ensure that alternative arrangements be made for incidents occurring after working hours.

### **3.21 Emergency Preparedness and Response**

#### **3.21.1 Emergency Management**

The art of emergency preparedness and response is to minimise the effects of any emergency and to restore normal activities as soon as practical. The Principal Contractor shall develop his own emergency response plan for both work areas and office areas and submit this plan to the Contracts Manager for approval. The plan shall be amended as required by the Contracts Manager. The Contractor shall ensure that all Contractors' Personnel are aware of and trained in the execution of the emergency plan. Contractor shall further ensure that Emergency response service is available at all times to attend to any emergency cases that may arise during the duration of the contract.

Periodic emergency drills must be undertaken to test the effectiveness of the plan. The Contractor shall initiate his own emergency drills, with the co-operation, and subject to the approval of the

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Contracts Manager. Details of such drills shall be recorded and such records shall be made available on request.

The Contractor shall be responsible for ensuring that his emergency plan is reviewed annually, and after every incident which caused the emergency plan to be activated. Any changes made shall be briefed to all persons affected and the information provided to the Contracts Manager.

Note: The Contractor shall be responsible to familiarise himself with local municipal disaster management portfolios.

### **3.21.2 Fire safety**

The Principal Contractor shall develop fire safety and evacuation procedures for any area under his control prior to the commencement of work. The procedure shall take into consideration the size of the area, types of work being done (e.g. cutting, welding, grinding, etc.), amount of combustible materials present etc. It shall take account of any hot work permit arrangements and all other applicable fire and evacuation procedures. All Contractor's Personnel entering and working on the Project Site, and other places, if any, as may be specified under the Contract as forming part of the Site, shall be trained in fire safety and emergency evacuation and any other duties they are required to perform e.g. Fire Warden.

Existing fire management systems in buildings shall be maintained during construction whenever possible. Any changes shall be approved by the Engineer before implementation.

The contractor shall be at all-times available for any meetings and interventions that are arranged by the Engineer in the sake of fire and emergency safety.

### **3.21.3 Fire Safety Plan**

The Contractor shall prepare a Fire Safety Plan which shall include:

- The designation and organisation of Contractors' Personnel to carry out fire safety duties, including fire watch service, if applicable;
- Emergency procedures to be used in the case of fire, including:
  - method of sounding the fire alarm;
  - notifying the fire department;
  - instructions to Contractor's Personnel;

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- firefighting procedures;
  - evacuation routes;
  - location of assembly points, and
  - Integration with existing emergency procedures.
- The control of fire hazards in and around buildings.;
- Maintenance of firefighting facilities;
- Display in strategic places a site plan that will illustrate the assembly points, locations of means of raising the alarm and extinguisher media. A plan shall be drawn up for each area under the Contractors control and shall, where appropriate, include office and welfare facilities.

#### **3.21.4 Fire Alarm Shut-down**

The Contractor shall inform the Contracts Manager of all fire alarm shut-down requests in writing 7 days prior to any part of a fire alarm system being shut down. When this is required the Contractors shall develop alternative procedures, as approved by the Contracts Manager, to follow during a fire alarm shutdown.

### **3.22 Fire Equipment and maintenance**

All firefighting equipment's that have been provided shall:

- Be clearly labelled
- Conspicuously numbered
- Entered in a register
- Inspected monthly by a competent person
- Tested and serviced at recommended intervals by an accredited supplier
- Results entered in the register and signed by competent person.

A Principal Contractor shall have a layout plan of a site indicating where all his firefighting equipment is located.

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### **3.23 SHE Training**

The principal contractor, when making a bid for this project shall provide a breakdown list of the SHE training requirements and the costing of such requirements. Similarly, appointed contractor must provide the same requirements when bidding with the principal contractor.

The scope of training includes but is not limited to the type of work being performed and the relevant procedures. Additional to the requirements, will be that the principal contractor and appointed contractors must have the appropriate qualifications, certificates and employees should always be under competent supervision.

Where legislative and Eskom recommended appointments are made, the relevant training shall be given to those appointees prior to the acceptance of those appointments.

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

Appropriate time must be set aside for training (induction and other) of all employees. Records of all training and qualifications of all contractor employees must be kept on the SHE file.

The contractor must ensure that the training providers are accredited and registered with SETA according to the relevant unit standards. The contractor must have proof of this on site for verification.

#### **3.23.1 Induction training**

On annual basis or as when required, the Client shall provide Principal Contractors with Site Induction which the Principal Contractor shall ensure communication to his employees and visitors as well as contractor employees/visitors.

The principal contractor shall ensure that all his / her employees, appointed contractors and their employees have undergone the Eskom Safety Contractor Management induction training prior to commencing work on site. Attendance registers must be completed of any induction training given, which must indicate that they have received and understood the induction training.

Prior to attending the induction training, all employees must undergo a pre-employment medical examination and found fit for duty. A copy of the certificate of fitness must be kept in the SHE file on site for the duration of the project.

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All employees and visitors on site shall carry the proof of induction training.

### **3.23.2 Site specific induction training**

The principal contractor shall ensure that all his / her employees and appointed contractor employees undergo their company (site specific) induction with regard to the approved project SHE plan, general hazards prevalent on the construction site, construction risk assessment, rules and regulations, and other related aspects. The induction training should also include identification of sensitive features such as wetlands/vlei areas, red data species, graves, etc.

Proof of induction signed by Inductor and trainee must be submitted to the Safety department before an access permit will be issued. The employer shall provide to each employee a proof of induction, which he/she shall carry and produce when required.

The Contractor shall maintain comprehensive records of all employees under his control (including all employees of the contractor) attending induction training. Acknowledgement of Life Saving Rules, receiving and understanding the induction must be signed by all persons receiving the induction respectively.

### **3.23.3 Visitors to site induction**

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

Visitors who have completed site induction must be provided with a record of proof of Induction training.

### **3.23.4 General training**

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

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### **3.24 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.

It may be required that prior to access being granted that person(s) complete the required training e.g. plant access training, employee training, occupational health and safety training or any other prescribed training.

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.

### **3.25 Contractor Site Establishment**

Principal contractor's site facilities should be managed at all times.

Prior to establishing a project site, a site plan is required to be drawn listing position of all buildings, amenities, storage and stacking areas. Where, working in the field and material is stored at the work sites, then proper stacking and storage shall be carried out.

When compiling the site plan, cognisance must be taken to the establishment of the site camp, ablution facilities and dining area in relation to one another and away from stacking and storage areas.

#### **3.25.1 Contractor's Site Facilities**

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

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- Temporary Facility Layout Plan;
- Sheltered eating facilities;
- Change rooms;
- Ablution facilities;
- Site Sheds, Offices and Amenities;
- Lay down and Storage Areas;
- Temporary Site Services;
- Waste Storage Facilities & Receptacles and;
- Designated smoking areas.

The Principal Contractor must develop their site establishment procedure and method statements in line with the construction EMP, RoD, environmental authorisations and other permits and licenses.

Reasonable and suitable living accommodation may be provided for employees who are far removed from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation.

### **3.25.2 Site roads**

When planning, sufficient areas must be allocated for parking of construction vehicles and mobile equipment's as well as roadways for ease of manoeuvrability of these vehicles.

Sufficient width roads to be provided and adequate space is to be allowed for large vehicles traversing the sites.

### **3.25.3 Construction site**

**Note:** No area is to be stripped of vegetation to create firebreaks, to prevent or make fires. No open fires are allowed on site. The contractor must ensure that operations are in compliance with statutory requirements at all times.

- The contractor must develop a fire safety procedure for the construction site prior to commencing work. The procedure must take into consideration the size of the site/s, the type of work performed and amount of combustible materials. Cognisance of OHS Act CR 29 must be made.

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- It must be developed in accordance with the hot work permit of the Eskom Plant Safety Regulations, Eskom Fire Risk Management requirements and all other applicable Regulations. All workers entering and working in the construction site need to be trained in fire safety and any duties they are required to perform.
- A suitable fire warning system for alerting site personnel of fire shall be provided, and capable of being heard in all areas of the site.
- Appropriate portable extinguishers must be available on the construction site and in cases of hot work, be readily available at the location.
- Storage of combustible and flammable liquid in the construction site is not permitted unless stored in approved flammable cabinets or outdoors away from the buildings.
- Site Smoking Restrictions must be enforced. No open flames are permissible and where hot work is performed, the work areas must be cleared of any combustibles prior to commencement of work.

### **3.26 Public Safety**

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

Contractors shall factor in, in their safety plan, how they intend safeguarding/ controlling any members of the public against their activities during the project.

### **3.27 Hazard Identification and Risk Assessment (HIRA)**

It is a legal requirement in terms of Section 8 (2)(d) of the OHS Act for an employer to continuously carry out risk assessments, to establish which risks and hazards are attached to the health and safety of persons due to any work which is performed, any article or substance which is handled, stored, transported.

The Contractor shall prepare and provide to the Client a Baseline Risk Assessment as well as activity based Risk Assessments for an intended work.

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A risk assessment is defined as an identification of the hazards present in an organisation and an estimate of the extent of the risks involved, taking into account whatever precautions are already being taken.

It is essentially a three stage process:

- identification of all hazards;
- evaluation of the risks;
- Measures to control the risks.

Risk assessments are required to be maintained. This means that significant changes to a process or activity, or any new process or activity should be subjected to a risk assessment and that if new hazards come to light during the work process, then these should also be subjected to risk assessments. Risk assessments for long term processes should be periodically reviewed and updated. Baseline risk assessment shall be reviewed at least every six months, or as when required (i.e. changes to scope, incidents occurring, legislation etc.).

Risk assessment shall be developed by the cross-functional team. The following role players must be involved when compiling the risk assessment as minimum:

- Project manager;
- Supervisors;
- Specialists;
- SHE officers;
- SHE Reps;
- Employees with experience of the task and;
- Union representative if available.

Attendance registers must be kept of all the employees involved in compiling the risk assessment.

### **3.28 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 a risk assessment is conducted for all high risk activities;

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- Ensure that safe working procedure is communicated to all employees and safe work practices are enforced;
- Ensure that permanent and adequate on site supervision is available for the duration of the work that is being conducted;
- 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 all the required barricading, lighting, flags, flashing lights, or other safety control equipment to enable operations to proceed in a safe manner;
- Maintain, at all times, defined access ways, which are clear of objects or obstructions, so as to allow for emergency vehicle entry;
- Provide any temporary protective shielding required for protecting nearby operations from the construction activities and;
- 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.

### **3.29 Pre-Task Risk assessment/Daily Safe Task Instruction (DSTI)**

The Contractor shall on a daily basis and for every task to be performed, conduct a pre-task risk assessment with all employees involved with the task(s). The pre-task risk assessment will form the basis of the daily pre-job brief/toolbox talks prior to the start of work. The pre-task or on the job risk assessments must be conducted at the place where work is to be performed/ conducted to allow supervisors and employees to assess any inherent risks that could have been overlooked during the initial risk assessment or any changes that might have occurred in a period of absence. This Pre-task risk assessment must at all times be available where the work is performed. This will highlight critical steps from the 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 noted on a standard form, which will be 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.

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Daily or issue based or. For example if a job / task is extended over a day or halted due to inclement weather.

Guidelines for actual steps involved in a job/task specific risk assessment are:

- Each activity is listed;
- Specific hazards are identified and listed against each activity;
- The magnitude of each risk is rated as Low, Medium or High;
- All known documentary and supervisory controls are listed, for instance: what safe work procedures exist for ladders;
- The relevance, effectiveness and sufficiency of these controls are assessed;
- In the event of insufficient or deficient controls for the particular activity, steps to be taken to rectify this shall be recorded, and safe working procedures drawn up;
- Persons responsible for implementing and supervising the task shall be identified, nominated and duly assigned;
- Persons responsible for monitoring the task and carrying out the planned job observation must be nominated;
- Completed risk assessment shall be handed to the Eskom project manager representative for comment and approval.

The relevant section of the risk assessment shall be issued with a Transmittal Note to the Supervisor nominated as the responsible person; and the names of workmen who have received instruction on the work content and the sequence of the activities listed in the risk assessment shall be recorded, and their competence established. This instruction shall be done through an interpreter if required and recorded on the Pre-Job Brief (Daily Safe Task Instructions), with reference to applicable Risk Assessments.

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

Method statements / written safe work procedure are control measures used to prevent an incident from occurring during the execution of the project. A written safe work procedure/ method statements provide guidance how to execute the task safely. A safe working procedure should be written when:-

- a. Designing a new job or task;

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- b. Changing a job or task;
- c. Introducing new equipment or substances; and

The safe working procedure should identify:

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

The Principal Contractor shall compile project / site specific method statements and safe work procedures for all the tasks as identified in the risk assessment and scope of work, which will be accepted by the Engineer or Client.

Note: The acceptance will be qualified with the statement: "Acceptance does not relieve the contractor of his responsibility for ensuring safe working procedures in terms of the Construction Regulations. No work shall be carried out without a Principal Contractor's approved method statement, safe work procedure and task specific risk assessment.

Commencement of any work activity does not take place unless a method statement and risk assessment has been produced and submitted to the Project Manager's Site Safety Officer, five working days in advance of any proposed specific activity starting.

There must be approved method statements and written safe work procedures for all the high risk activities as identified in the risk assessment. No work shall be carried out without an approved method statement and written safe work procedure.

The supervisor / team leader shall ensure that all employees are trained on all applicable safe work procedures. Approved method statements and safe work procedures together with records of training/ awareness shall be kept on site at all times where work is conducted.

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Safe work procedures shall be compiled and documented for applicable activities (arising out of the Job Safety Analysis (JSA) and Hazard Identification & Risk Assessment (HIRA).)

### **3.31 Planned Task Observation**

The Principal Contractor shall provide the planned task observation procedure or process covering but not limited to the following:

- Persons responsible for monitoring the task and carrying out the Planned Job Observation must be the supervisor;
- Planned job observations should be conducted in such a way that the employee is observed against the actual steps (of the written safe work procedure) to be followed when performing a task and be marked against compliance with each step. This will assist in determining employee competence and compliance. Record should be kept at all times;
- The supervisor who conducts the PTO must have a copy of the PTO to ensure that the employee is following the steps and;
- Where the employee did not comply or did not follow the required steps, this should be indicated on the report and actions be taken to correct the deviation.

### **3.32 Personal Protective Equipment Requirements**

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.

Contractor's employees on site, including visitors, shall use SANS approved risk based PPE at all times, as a minimum:

- Head protection hard hat (with chin straps);
- Steel toe capped safety boots;
- Eye protection. Wearing of impact Safety Spectacles with side shields. Prescription glasses must comply with the same standard or cover impact safety spectacles must be worn over them;
- Long sleeved and long pants protective clothing;

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- High visibility vests;
- Dust mask and/or Cloth masks where dust mask is not compulsory;
- Refer to General Safety Regulation 2 of the OHS Act.

The Contractor shall ensure that his employees understand why the personal protective equipment is necessary and that they use them correctly. Training should be provided to employees on the use, care, replacement and limitation of the provided PPE. Records of training to be kept and made available to the Client or inspector upon request.

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

*Note: Certain areas will be subjected to specific/extra PPE requirement.*

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

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

The Principal Contractor is required to keep an updated register of all PPE issued, including that of his employees and contractors. PPE inspector must be appointed in writing.

#### **Contractor's to take note of the following:**

- All contractors shall comply with the requirements of GSR 2 of the OHS Act;
- The risk based PPE matrix must be compiled detailing the types of PPE that is required to be issued to employees performing the respective tasks;
- Where there are unusual instances where particular activities require additional type of PPE, then a risk assessment must be conducted where such PPE requirements will be identified and the issuing be carried out;
- All contractors shall ensure that their visitors wear and use the correct PPE whilst on worksites;
- Where PPE is required and visitors are not in possession of, then it is the individual contractor's responsibility to provide the PPE;

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- All PPE purchased and used by all contractor employees including visitors must comply with the relevant SANS standards;
- Where deemed as a requirement, then high visibility vests shall be worn.

### **3.33 Traffic Management Plan**

The Principal Contractor shall develop and implement an adequate traffic management plan, taking into account the safe access and egress of all anticipated traffic, plant movement, pedestrians and vehicles to all working areas of the site including the core construction area, the lay down areas and site offices. Such traffic safety measures shall include the separation of vehicle and pedestrian traffic to prevent injuries. All vehicles shall be operated by competent and authorized personnel

The Principal Contractor shall enforce the principles of road safety both on and off the site. This shall include the control of vehicles on site, road worthiness, vehicle/plant maintenance programmes, signage, speed limits, flagmen, warning lights and high level flags if required.

Where access roads pass underneath overhead power lines, the Principal Contractor shall provide suitable height limitation barriers (goalposts) as agreed upon with the Client.

#### **Key issues in dealing with traffic management on site will include but not limited to:**

- Management of vehicle movement e.g. movement systems, speed limits, vehicle parking, markings, signalling, loading and unloading procedures.
- Keeping pedestrians and vehicles apart as far as is reasonably practicable by means of demarcation, signage and dedicated vehicle / pedestrian routes or other suitable means
- Improving visibility of vehicles and pedestrians.
- Signs and instructions.
- Public interface.
- Project road maintenance.
- Operator and driver competency and medical fitness.
- Proper fatigue management plan.

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The Principal Contractor shall enforce the principles of road safety both on and off the site. The Principal Contractor shall submit a Road Safety Method statement to the Employer within 28 days after the starting date and shall conduct road safety audits on a regular basis. This shall include the control of vehicles on site, road worthiness, vehicle maintenance programmes, signage, speed limits, flagmen, warning lights, high-level flags and disciplinary procedures.

Detailed traffic management risk assessment should accompany the traffic management plan, and continuous assessments should be done on on-going basis.

### **3.34 Construction vehicle and Private Vehicle safety**

All construction vehicles shall meet the legislative requirements pertaining to the OHS Act No. 85 of 1993, Construction Regulations 23, the National Road Traffic Act, National Environmental Act and Eskom Vehicle and Driver Safety Management Procedure 240-62946386.

#### **The following requirements are applicable to the use and operation of construction vehicles:**

- The Principal Contractor shall ensure that all construction vehicles are operated by a person who has received appropriate training, is certified competent and in possession of proof of competency and is authorised in writing to operate those construction vehicles;
- Designated drivers shall be in possession of an appropriate valid driver's licence, valid for the class of vehicle and authorised in writing to operate the Construction vehicles. The driver's license shall be kept on the person and shall be produced on request;
- Appointed driver/operator must be authorised in writing by their supervisor and the appointment letter signed by both the supervisor and the driver/operator. Such authorization must detail their duties, responsibilities, limitations and areas of operation;
- All construction vehicle operators are to wear illuminated reflector vests at identified high-risk sites and construction projects;
- Drivers or operators and construction vehicles at identified high-risk sites and construction projects should have a permit system for operating in that particular area;

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- All drivers of construction vehicles 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;
- All drivers and operators to have a file with appointment letter, medical fitness certificate and proof of competency at all times in the plant or vehicle;
- No drivers or operator may text, talk on cell phones or two way radios whilst driving under any circumstances. This includes the use of hands-free kits. Cell phone calls by drivers shall only be made when the vehicle is stationary, in a place of safety, and with the engine switched off;

**It is the responsibility of the driver to ensure that:**

- He/she and their passengers wear seat belts whilst the vehicle is in motion;
- He/she comply with all traffic road rules, safety, direction and speed signs;
- Vehicles are not overloaded and are within their safe working load limit.

**The Principal Contractor shall ensure that his employees and those of his suppliers do not:**

- Ride on back of bakkie, crane or other mobile plant equipment;
- Leave vehicles unattended with the engine running. Ignition keys shall be removed in all cases when the vehicle is left unattended;
- Park vehicles in unauthorised zones/areas or where parking will obscure other vehicle or pedestrian visibility.

**Pre-Use Inspection of Construction Vehicles**

The Principal Contractor must take reasonably practicable measures to ensure that construction vehicles are inspected prior to use, which measures must include:

- That the driver/operator of the construction vehicle physically inspects and ensures that the brakes, lights and any other defined safety features and devices are functioning as intended prior to setting such construction vehicle in motion; and

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- Pre-use checklists are completed by all drivers/operators of construction vehicle at the beginning of their shift. Such checklists must clearly identify all the components, features and functionalities to be inspected by the driver/operator. For each component, feature or functionality, the checklist must clearly indicate the pre-established criteria under which the mobile machinery may or may not be put in motion;
- Inspection logbooks or checklists are kept in the vehicle at all times. In case where there is no logbook and a checklist is used, then the checklists should be kept in a file and always available in the vehicle. The logbook or checklist should as a minimum include the following details on the top: Company name, Project/site name, Date, driver/operator name, vehicle registration number. Space for remarks must be available to allow the driver/operator to record deviations, and the signature space at the bottom for both the driver/operator and also the supervisor.
- Vehicles shall be provided with fixed & firmly secured seats and seat belts - adequate for the number of passengers being transported. Passengers in vehicles shall only be transported according to the number of seat belts present;
- All buses including minibus taxis used to transport personnel shall be fitted with a siren/hooter alarm that sounds when the vehicle is reversing. This includes vehicles working both inside and outside of the construction area;
- All buses and minibuses shall carry warning triangles, fire extinguishers and first aid box at all times. Buses/Minibuses must have appropriate number of emergency exits. All steps must have anti slip treads installed;
- Drivers of all vehicles must allow appropriate travel distance between vehicles travelling in front of them and at no time shall "tailgating" be permitted;
- The Principal Contractor shall submit a detail list of all vehicles that will require site access to the Contracts/Project Manager;
- Eskom reserves the right to search any vehicle on the premises or when entering or leaving the premises;
- The Principal Contractor shall be solely responsible for the safety and security of any of his vehicles (including private vehicles) on the premises;

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- The Principal Contractor shall maintain his vehicles in roadworthy condition and hold a valid vehicle license (DISC). These vehicles shall be subject to inspection by the Client representative on random basis. Vehicles which are not roadworthy will not be allowed onto the Project site;
- In the event where the Principal Contractor do not own the equipment, the Principal Contractor is still responsible for ensuring all conditions are complied with by all of his suppliers or hire companies;
- Ensure that all construction vehicles are maintained according to the manufactures specifications. All servicing and repairs must be carried out by the Contractor in a designated area;
- Records of maintenance must be kept on site;
- All waste from servicing must be disposed of in accordance with the environmental legislation;

**The use of amber, rotating or flashing lights on construction vehicles:**

- The use of amber, rotating or flashing lights shall only be used in accordance with the requirements of the National Road Traffic Act ,1996 (Act no 93 of 1996);
- No construction vehicle is allowed to use the amber light whilst driving on a public road and;
- The construction vehicles fitted with amber rotating lights must have a manual operated switch. The amber rotating lights must be switched off when the construction vehicle enters a public road.

**3.34.1 Private Vehicles and on-site driving Rules**

All vehicles required to enter on site will only be allowed on site, once a permit application has been made and approved.

- Privately owned vehicles will be limited on site;
- Drive professionally;
- Keep to the speed limits (taking weather conditions into consideration);
- Reverse parking is mandatory;
- Drive with your head lights switched on;

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- Obey road signs and all safety signs;
- Always wear your seatbelt;
- Drive 10 km/h in all parking areas;
- Refrain from talking on cell phones or two way radios whilst driving;
- Eskom reserves the right to search any vehicle on the premises or when entering or leaving the premises;
- The following speed limits are applicable on site: 10km/h at the parking areas and speed limit as per posted signage will apply at all other roads on site. A speed of 40km/h will apply in all other roads where there is no posted speed limit sign.

Ensure that all drivers and passengers wear seatbelts, while travelling in a motor vehicle. Vehicles not fitted with seatbelts must be retrofitted according to the vehicle manufacturer's specifications.

Ensure that no employees, including Principal Contractor employees, when performing work for Eskom, will be transported in the back of open vehicles. This applies both on and off-site.

Proposals to refuelling area on site must have the written approval from the Eskom HSE team/ Contracts/Project Manager

### **3.35 Housekeeping and Order**

The Principal Contractor and his contractors shall maintain a high standard of housekeeping within the site. Prompt disposal of waste materials, scrap and rubbish is essential.

The Client requires the Contractor to conduct housekeeping on a daily basis and perform housekeeping inspections (at least weekly) to ensure maintenance of satisfactory standards. The Principal Contractor shall document the results of each inspection and shall maintain records for viewing.

Housekeeping must be done before and after every shift. After completion of every task, each contractor must conduct a proper housekeeping and keep evidence of housekeeping in that area.

Materials/objects shall not be left unsecured in elevated areas –falling objects may cause serious injuries/fatalities.

Nails protruding through timber shall be bent over or removed so as not to cause injury.

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All packaging material including boxes, pallets, crates, etc. to be removed from the work area immediately.

On completion of his / her work, the contractor is responsible for clearing his / her work area of all materials, scrap, temporary buildings and building bases to the satisfaction of the client/agent.

In cases where an inadequate standard of housekeeping has developed, compromising safety and cleanliness, anyone has the responsibility to bring it to the attention of the principal contractor in the first instance and the Eskom project/site manager in the second instance.

The Eskom Project/Site Manager has the right to instruct the principal contractor and appointed contractors to cease work until the area has been tidied up and made safe. Neither additional costs nor extension of time to the contract shall be allowed as a result of such a stoppage. Failure to comply with this requirement will result into site cleaning by another cleaning contractor company at the cost of the principal contractor.

Emphasis on housekeeping and general safe guarding on construction site CR 27 and stacking and storage on construction site CR 28 is mandatory and must be complied with at all times.

#### **3.35.1 Stacking and Storage**

Before stacking any material, the contractors or their employees must consult the contract manager for authorisation to use such an area for stacking purposes. This is to prevent haphazard arrangements.

Adequate care must be taken by the contractor to ensure that storage and stacking is carried out correctly and safely.

Correct shelf stacking must be carried out, heavy and bulky on the bottom, light and small on top.

#### **3.36 Workplace Signage**

Symbolic safety signage shall be displayed where it is required by legislation. All symbolic safety signage that the Contractor is to use/display shall conform to the requirements of SANS 1186. Signs shall be positioned to be seen from most positions within the work sites / areas. All signage must be clear at all times and be replaced timeously when worn out.

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The display of the following signs is mandatory:

- For Site Establishment: The Contractor's Company Name Sign must be posted at their site offices to reflect the name and contact details of the: Construction Supervisor; Health and Safety Manager/Practitioner; First Aider(s); Health and Safety Representative and Evacuation arrangements.
- "Radio-Active Material" symbolic signs for radioactive material storage areas.
- The location of every First Aid Box; Fire Extinguisher and Emergency Exit is to be clearly indicated by means of appropriate signage.
- When in use, an explosive Power Tool shall have signage warning of its operation.
- Other specific signage for high risk activities shall be displayed e.g. Use of Explosives.
- Contractor(s) shall post Company Name Sign on all fuel storage containers.

The Contractor shall provide the signage where work is carried out, where unauthorised entry is prohibited and/or where alerting and cautioning passers-by to be aware of potential dangers.

The meanings of the appropriate symbolic signage must be discussed during induction training and toolbox talks.

Where possible, within workshops, work areas and established premises, the appropriate sign indicating the meaning of symbolic safety signs must be displayed.

### **3.37 Hazardous Materials/Chemicals Management**

HCA shall be managed in accordance with HCA Regulations of the OHS Act 85 OF 1993.

Prior to any HCA being brought onto the site or produced on the site, the Principal Contractor/contractor shall supply the client with the following:

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

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The information is to be provided at least two (2) working days prior to the expected delivery on site. The client representative shall approve the use of any hazardous substance after receiving the above information. No HCA are to be brought onto the site until the client representative approval is received.

### **3.38 Flammable and Combustible Liquids**

- Proposals to store fuel on site must have written approval from the Eskom HSE team/Contracts/Project Manager. The volumes of fuel allowed to be stored will depend on site conditions and Statutory Regulations.
- A maximum storage of 40 litres of fuel is allowed to be stored. Anything greater than 40 litres to be stored in a flammable/combustible liquid store.
- Adequate numbers of dry chemical fire extinguishers, each with a minimum capacity of 4.5 kg, shall be provided, installed and maintained.
- All fuel storage areas must comply with the following requirements: -
  - Storage should be well clear of buildings.
  - Storage areas must be kept free from all combustible materials.
  - All Safety signs must be prominently displayed i.e.
    - Flammable Liquid.
    - No Smoking.
    - No open flames.
  - Adequate firefighting equipment must be available.
- Diesel tanks are to be installed in a bunded area; bunded area must be able to contain 110% of tank capacity.
- Bunded area shall be of a concrete or steel construction and lined with a leak proof sealing material.
- Bunded area shall have a drain valve.
- No other material/equipment shall be stored in the bunded area.

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### **3.38.1 Refuelling at the construction site**

With the exception of construction vehicles and mobile equipment, before a machine is refuelled, the motor must be stopped. Refuelling shall take place at designated safe areas and appropriate warning signs installed. Suitable drip trays must be used to prevent spillage at the filling nozzle.

### **3.39 Explosives (if required)**

Explosives shall not be brought onto the site or be used without the express permission of the relevant Eskom Contracts/Project Manager. Explosives or detonators shall not be stored on the site.

Detonators and other explosives shall never be carried in the same box.

The provisions of all relevant Acts and Regulations shall be strictly observed.

### **3.40 Explosive Powered Tools**

Written permission to use these tools on site must be obtained by the Contracts Manager.

Only certified, competent, appointed personnel (CR. Reg.21) shall be allowed to operate explosive powered tools on site.

A valid permit must be obtained before commencement of work.

Safety signs and barriers must be erected before explosive power tools are used. Screening shall be provided around the Project Site (or at other places, if any, as may be specified under the Contract as forming part of the Site).

Cartridges and explosive power tools shall be stored separately in a secured location where they are inaccessible to unauthorized persons.

### **3.41 Compressed Gas Cylinder**

General Safety Regulation 9 and SABS 1548 shall apply. Storage areas should be a minimum of 30 meters from all buildings. Storage areas shall be securely fenced in an open mesh cage, in a shaded area, on stable and solid surfaces. For security and ventilation purposes, a wire mesh fence should surround the storage area. The enclosure shall be kept locked.

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Hazard and danger warning signs must be prominently displayed at storage area; e.g.

- No Smoking
- No Naked Flames
- Contractor Identification and Emergency Contact information

Adequate ventilation must be provided. Cylinder cages shall be maintained in the open air. Storage areas must be kept free from all combustible materials; no other materials must be stored in cylinder enclosure.

Full cylinders must be kept apart from empty cylinders in a clearly designated area so that it will not be necessary to open valves to check whether cylinders are empty or full.

Cylinders must always be chained separately in an upright position in appropriate cylinder stands. Cylinders must be stored in rows with aisle in-between for ease of access and removal in the event of a fire or emergency. Adequate fire fighting equipment provided by the Contractor must be readily available. Cylinders for reactive gasses (e.g. oxygen and acetylene) shall be stored separately.

Flammable and oxidising gasses must not be stored together. Greases and oils must never be allowed to come in contact with Oxygen. Cylinders will only be allowed on site in an approved trolley, properly secured and with a chain.

### **3.42 Machinery, Tools and Equipment**

This is the list of rules for all users of machinery, tools and equipment.

- The Contractor shall ensure that all machinery, tools and equipment are identified, safe to be used and are maintained in a good condition;
- All machines driven by means of belts, gear wheels, chains and couplings shall be adequately guarded. A machine is guarded when persons cannot gain inadvertent access to the moving parts;
- The Principal Contractor shall ensure that all machinery, tools and equipment shall be listed on an inventory list and handed to security with a copy kept on site;

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- All machinery, tools and equipment to be regularly inspected at least monthly or as required by legislation and risk assessments, registers of tools shall be kept on the safety file. The equipment should be numbered or tagged so that it can be properly monitored and inspected;
- All machinery, tools and equipment shall have the necessary approved test or calibration documentation where applicable prior to being brought onto the premises and the records shall form part of the SHE plan;
- All fuel driven equipment shall be properly maintained in accordance with the manufacturer's recommendations and legal requirements;
- The Client reserves the right to inspect items of plant or equipment brought to site by the Contractor for use on this Contract. Should the Client find that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the Client/Agent shall advise the Principal Contractor in writing and the Principal Contractor shall forthwith remove the item from the site and replace it with a safe and adequate substitute. In such cases, the Principal Contractor shall not be entitled to extra payments or extensions of time in respect of delay caused by the Client's instructions;
- The Principal Contractor/contractor shall ensure that he has all the necessary registers to record all tools and equipment and;
- All employees operating or using machines and tools shall:
  - Be competent;
  - Have a valid certificate and;
  - Have proof of any form of task related training.

### **3.43 Machine Guarding**

An assessment should be conducted in writing to ensure that all machines and tools are fitted with a guard and the assessment should be kept in the safety file.

All guards shall be inspected by a competent person on a monthly basis as well as by users prior to use. These inspections and proof of corrective action taken must be recorded and kept on site.

#### **Record keeping:**

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- A register shall be used which indicates the name, number of the machine or tool and the number of guards and;
- The register shall be kept in a safe place for record purposes.

### **3.44 Tools and Equipment**

Contractors shall ensure that all tools and equipment are identified, safe to be used and is maintained in a good condition. Contractors shall ensure that all tools and equipment are listed on an inventory list, be regularly inspected at least monthly or as required by legislation and risk assessments. The equipment should be numbered or tagged so that it can be properly monitored and inspected.

Where applicable, tools and equipment must have the necessary approved test or calibration documentation prior to being brought onto the project and the records shall form part of the SHE plan. Maintenance calibration shall be undertaken in terms of the manufacturer's requirements.

All fuel driven equipment must be properly maintained in accordance with the manufacturer's recommendations and legal requirements.

Eskom reserves the right to inspect tools or items of equipment brought to site by contractors for use on this project.

Should Eskom personnel find any item that is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the Eskom personnel shall advise the contractor in writing and the contractor shall forthwith remove the item from site and replace it with a safe and adequate substitute.

**Note:** In such cases, the contractor shall not be entitled to extra payments or extensions of time in respect of delay caused by Eskom's instructions.

- Where defective tools and equipment's are identified, such tools and equipment shall be removed out of site immediately, locked away to prevent further use until such time as the tool or piece of equipment has been repaired.
- Contractors shall ensure that the appropriate records are kept for all tools and equipment used on the project. Such tools and equipment's shall be subjected to regular inspections.

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#### **3.44.1 Hand tools and Pneumatic Tools**

All hand tools (hammers, chisels, spanners, etc.) must be recorded on a register and inspected by the construction supervisor on a monthly basis as well as by users prior to use.

All pneumatic tools shall be numbered, recorded and inspected at least monthly as well as by users prior to use. The revolutions per minute measured shall be in accordance with the manufacturer specifications. The Contractor shall ensure that any user of a pneumatic or electric breaker shall have their hands protected when operating near adjacent objects that could cause injury if the bit snags.

The Equipment should be numbered or tagged and colour coded so that it can be properly monitored and inspected.

All hand tools must be fitted with lanyards when performing work at heights. Hand tools inspectors must be appointed in writing. Proper storage of all tools should be maintained during execution of task and tools be taken back to the storeroom at the end of the task or shift. No tools should be allowed scattered on the floor where work is carried out or when employees goes for lunch break.

Tools with sharp points in tool boxes must be protected with a cover.

All files and similar tools must be fitted with handles.

No make shift tools are permissible on the project.

All cold chisels used on site shall be fitted with a hand guard to prevent hand injuries in case of a miss with the hammer.

Compressed air shall never be used for any purpose other than that for which it is provided. Compressed air should never be used to remove dust from clothing. Hoses shall be orderly and safely routed in order to prevent tripping hazards. All compressed air hoses used for powering construction tools shall be made from reinforced hoses and the connections must be crimped.

All contractors shall have a user policy for use of craft knives. Knives shall not be carried in clothing pockets with an open blade. The Contractor shall ensure that the appropriate cut resistant PPE is worn by the user. Cut resistant material coverage should include the forearm of the non-knife holding hand unless other safety measures are taken.

#### **Records**

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- Check list for hand tools;
- Check list for air tools including records of the measurement of revolutions on grinders and;
- Gas cylinder trolley checklist Register.

#### **3.44.2 Portable Electric Tools**

All powered tools shall be examined before use to ensure general serviceability and the presence of all applicable safety devices. The electric cord and electric components shall be given an especially thorough examination. All equipment shall be inspected and documented on a monthly basis by an appointed inspector as well as by users prior to use, and colour coded to designate such inspection. Contractors are expected to follow the Project colour code programme unless approved by the Contracts Manager.

The Contractor shall ensure that where there is a risk of user injury, the Contractor selects electric drills fitted with safety devices which disengage power should the drill bit snag.

Electrical tools shall be used only within their capability and shall be operated in accordance with the instructions of the manufacturer.

All tools shall be kept in good repair and shall be disconnected from the power source while repairs are being made.

Electrical tools shall not be used where there is a hazard of flammable vapours, gases, or dusts.

All electrical tools and cord sets shall be protected by earth leak protection devices. This includes sets powered by small portable generators.

Where reasonably practicable, the Contractor shall ensure that tools or processes that produce dust shall be fitted with dust extraction equipment. Contractors shall avoid dry sweeping of hard surfaces and use a light water spray to minimise dust generation.

### **3.45 Boilers, Pressurised Systems and Pressure Equipment**

The Principal Contractor shall ensure that all pressure equipment are inspected by an Approved Inspection Authority in accordance with the Pressure Equipment Regulations 7.

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All pressure equipment shall be provided with at least one safety valve and such safety valve should 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 should be fitted with a pressure gauge in Pascal and the maximum permissible operation pressure marked with a red line on the dial.

### **Records**

- Inspection registers for pressure vessel
- The certificate from the manufacturers
- Registration certificate of an Approved Inspection – ensuring that all certificates are current, updated and available on request from the Client.

### **3.46 Inspection Colour Codes**

The below table should be used for colour coding on site for monthly and quarterly inspections on tools and equipment. Material to be used on colour coding should be cable ties. The colour coding should be implemented as soon as on the first day of the respective month. Previous month colour coding should be removed and replaced with new ones for the present month. Wrong colour coding on tools and equipment shall be deemed as proof that inspection was not conducted for the month on that particular item. Colour coding does not replace the need of daily inspection checklist being conducted daily and kept in the file on site.

Monthly Inspection Colour lode			Quarterly Inspection Colour Code	
January	Blue	Blue	January	Green
February		White	February	
March		Black	March	
April	Grey	Grey	April	Red

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May		White	May	
June		Black	June	
July	Pink	Pink	July	Blue
August		White	August	
September		Black	September	
October	Brown	Brown	October	Yellow
November		White	November	
December		Black	December	

### 3.47 Working at Elevated Positions

- The Principal Contractor shall ensure that all work performed in a fall risk position shall conform to the requirements of the OHS Act, the relevant SANS standards and Eskom Procedure 32-418 (Working at Height Procedure).
- All employees working in a fall risk position shall use the appropriate fall protection equipment unless working from a solid platform protected by suitable barricading.
- Whenever there is any potential of falling either from or into, a fall protection plan and risk assessment (which includes fall prevention) shall be compiled, implemented and reviewed and every possible and practicable means shall be adopted to provide such persons with effective training and safeguards. The fall protection plan developer shall be competent and have a fall protection developer training (with relevant unit standard).
- A fall protection Plan will be compiled, implemented , reviewed, communicated to all employees working at heights and shall include but not limited to the following:
  - Baseline risk assessment, which is specific and incorporates the working at height risk assessment, as well as the site-specific risk assessment, has been completed for the work to be conducted

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- A site and task specific risk assessment covering all work at elevated heights shall be carried out and appropriate mitigation measures to be put in place and communicated to all relevant employees.
- Appropriate training (as determined by the risk assessment) for all employees working at heights has been provided and records thereof
- Legal appointments (All appointments for the fall protection plan developer and implementer are in place)
- Individuals are medically fit to work at height, and records of this are kept.
- Safe working procedure/task analysis and work instructions, approved by a competent person, are in place.
- Appropriate height safety equipment and personal protective equipment have been issued to the individual. Up-to-date inspection records must be in place at all times
- The procedure addressing the inspection, testing and maintenance of all fall protection equipment, the withdrawal process of damaged PPE and up to date inspection records.
- A fall rescue plan, along with necessary equipment and trained rescuers, is in place to affect a rescue of a person in the event of a fall
- Emergency drills on all developed rescue plans shall be held at least once a year, under the supervision of a competent person.
- Emergency preparedness procedures.
- The *Principal Contractor* shall review their risk assessment and fall protection plan when changes are made to the design or construction that result in a change on the risk profile or when an incident occurs.
- The *Contractors* shall stop all persons working in elevated positions during periods of inclement weather.
- Working in elevated positions shall only be carried out under the supervision of a competent person in accordance with the appropriate unit standards for working at heights.

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- Fall arrest/protection plan and equipment shall be implemented where fall prevention is not possible.
- Please refer to Eskom Fall arrester checklist (240-43921084) *Contractor* shall use it, as a minimum guideline.
- All fall protection equipment shall comply with SANS Standards, other recognised international standards and Eskom Procedure 240-100979499 (Personal Protective Equipment for work at Heights specification).
- 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 and Eskom Procedure 240-100979499 (Personal Protective Equipment for work at Heights specification).
- 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).

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

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

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

1. properly planned;
2. appropriately supervised; and
3. carried out in a manner that is, as far as is reasonably practicable, safe and that its planning includes the selection of work equipment.

**Note:** Employer to assess as far as reasonably practicable whether the activity can be done on the ground, only then can the fall protection plan be implemented.

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**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.**

#### **3.47.1 Roof work**

Where roof work is to be performed, a risk assessment must be carried out prior to climbing on to the roof to determine the hazards (stability, suitability strength etc.), consequences of climbing and control measures that are required.

#### **3.48 Ladders**

All ladders shall have an identification tag, logged in a ladder register, and inspected on a monthly basis by a competent person and by the user prior to use.

Damaged ladders shall be marked as “DAMAGED” and removed from the Project Site (or at other places, if any, as may be specified under the Contract as forming part of the Site) and replaced with ones in good condition.

All ladders used for access shall be secured.

Ladders used shall conform to the requirements of GSR 13A and used in terms of GSR 6.

The appropriate head protection, with chin strap shall be worn by employees working from a ladder or with climbing irons.

The ladder wheels, brakes and platform must be in good condition. All metal parts to be in good condition, no cracks. Non-slip devices must be in good condition and no paint to be on wooden ladders.

Climbing irons are permitted to be used in place of ladders on condition that the requirements of GSR 6 are not compromised and from an electrical point of view not damage any cabling. The working at heights risk assessment must indicate the use of climbing irons. Employees using climbing irons shall be suitably trained in the use, care and maintenance of such climbing irons. When using climbing irons, the appropriate rope grab fall prevention system shall be used.

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A detailed inspection of all ladders shall be conducted monthly by a competent person and every time prior to climbing by employees using such ladders. The inspection check lists must be filed in the site SHE files.

### **3.49 Scaffolding**

- All scaffolding used shall comply with the OHS Act and Regulations as well as SANS 10085 and SANS 51004 (Aluminium and tower scaffold).
- Scaffolding erectors: Training is specified in SANS 10085.
- All complicated scaffolding and scaffolding higher than 3 meters must be built by a scaffold supplier.
- All scaffolding shall be inspected by a competent person weekly before use and also following weather conditions that could have made the scaffold unsafe e.g. which could make ground conditions unstable, after a storm, mishaps, before dismantling and after alterations. The inspection check lists must be filed in the site SHE files.
- Users of scaffolding shall carry out a visual inspection on a daily basis before use. If unsafe conditions are found or suspected, the scaffold shall be isolated until a thorough inspection has been made.
- The footing or anchorage points for scaffolds shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Unstable objects such as barrels, boxes, loose brick, or concrete blocks shall not be used to support scaffolds or planks.
- Scaffolds that provide access to areas where personnel can fall into a hazard shall install a gate at the access point of the hazard that is affixed with a warning sign stating that 100% tie off required past this point.
- The *Contractor* must give preference to using scaffold stairs instead of ladders for all scaffolds. These scaffolds must be fitted with a kick plate at the bottom of each stair section. The kick plate shall be able to prevent a member of *Contractors'* personnel slipping down the staircase and sliding between the floor and the mid-rail.

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- An appropriate scaffolding tagging system shall be used to confirm the status of scaffolding for use or not to be used, the inspectors name and surname , signature, date and telephone number must be written on the tag
- Scaffolding access stairs shall be fitted with toe boards at all landings to prevent a person slipping through.
- When employees are working on a scaffold provided with trap doors it must be closed at all times to prevent a person from falling.
- A **design and calculations** shall be done for all scaffolding in excess of 2 meter by an Engineer.
- A Team leader shall be appointed in writing for the erecting and dismantling of all scaffolding.
- Only use steel boards on scaffolding when working in the open.
- Scaffolding shall be erected and inspected by the competent personnel.
- The appropriate training for scaffold users shall be conducted prior to climbing on to the scaffold.
- The correct fall protection equipment shall be worn and used whilst climbing up, working from and climbing down the scaffolds.

### **3.50 Lifting Machines and Lifting Tackle**

#### **(Mobile Cranes, Crawler Cranes, Tower 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 OHS Act, the relevant SANS standards and Eskom Procedure 39-98 (Safe use of Lifting machines and lifting tackle), Crane Access and Inspection Plant (200-169237) and Critical Lift Procedure (200-170572,).
- A risk assessment shall be conducted prior to commencing with the task to identify the risk involved and appropriate mitigation measures must be put in place, and a method statement shall accompany the risk assessment detailing the lifting or rigging procedure.

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- If it is the Principal Contractor's intention to use lifting machines on site, it should be indicated in the Principal Contractor's SHE plan as well as the inspection so that the Eskom responsible persons can conduct an inspection when equipment is brought onto site. If his/her intention is to use a contractor he shall enter the name of the contractor into the notification letter to the Department of Labour. When equipment is brought onto site it shall be inspected by the contractor crane coordinator as appointed according to SANS 12840-3 clause 4.1 and clause 5.9.
- The Principal Contractor shall ensure that every lifting machine as listed in the National Code of Practice is operated by an operator specifically trained for a particular type of lifting machine and the operator shall be in possession of a valid permit (although the code of Practice has been withdrawn, contractors shall use it as a guideline). The user shall not require or permit any person to operate such a lifting machine unless the operator is in possession of a certificate of training, issued by a service provider registered by the Department of Labour and TETA.
- The facilitator and the assessor must be registered with the TETA.
- Whenever making use of an external contractor to do lifting work the Principal Contractor shall ensure that the operator is competent and the Principal contractors are required to conduct audits to ensure that the contractor complies with all safety and legal requirements.
- The Principal Contractor should verify if all 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 must be carried out by a registered LMI (Lifting Machine Inspector), appointed by a registered Lifting Machine Entity who has knowledge of the erection and maintenance of the type of lifting machine involved at intervals not exceeding six months.
- All the lifting machine and lifting tackle operators should be in possession of a valid medical certificate of fitness.
- Before using any lifting machines or tackle the operator should inspect it daily, refer to the requirements of the Driven Machinery Regulations 18 of the OHS Act 85 of 1993.
- All 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.

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- All lifting tackle should be examined at intervals not exceeding 3 months by a competent lifting tackle inspector, who shall record and sign off such examination, such lifting tackle shall be stored or protected to prevent damage or deterioration when not in use.
- Refer to the requirements of the Driven Machinery Regulation 18 and Construction Regulation 19, 22 and 23 of the OHS Act, SANS and ISO standards.
- All lifting tackle should be recorded on a register, refer to the requirements of the Driven Machinery Regulations 18 of the OHS Act 85 of 1993.
- All hooks shall be fitted with a safety latch/catch, and be in a good operational condition.
- A lock out system should be implemented to ensure that only an operator that is competent can operate lifting machines and fork lifts.
- All lifting tackle should 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 Labour.
- A risk assessment should be conducted prior to starting the task:
  - 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 contractor must 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.
  - Every employer shall ensure that the employee is adequately and comprehensively informed of the hazards when working in close proximity to overhead power lines and electrical installations.
  - Account should be taken of the bearing capacity of the ground, on which the tower crane is to stand, and the tower crane should be erected at a distance from excavations.

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- Rigging study should be conducted for all critical lifts.
- Principal Contractors and their employees shall keep out from under suspended loads, including excavators, and between a load and a solid object where they might be crushed if the load should swing or fall. They shall not pass or work under the boom or any crane or excavator or barricading.
- Guide ropes to be used to prevent loads from swinging. (Manila ropes)
- Only straight loads of up to 5 tons can be lifted by a person with basic rigging, depending on the complexity of the load. Should it be a critical lift or above 5 tons only a competent rigger will do such lifts. Should a lift become critical a critical lift procedure, rigging study and risk assessments must be completed.
- Hand signals will be displayed and visible on all cranes and the SANS 1029 standard must be used to ensure uniformity. All the crane operators, riggers shall be trained according to the SANS 1029.
- Permits shall be issued by an authorised appointed person when conducting maintenance and inspections.
- An illumination survey should be conducted prior to the start of work where lifting is performed at night.
- Tower Cranes should be earthed in accordance with SANS12480.
- All truck mounted cranes and stringing machines shall be fitted with Equal Potential Foot plates when working in close proximity of power lines.

### ***Record keeping***

- Service record books and test certificates of lifting machines and tackle should be kept in a file on site.
- A copy of the Site and Task specific risk assessment should be kept in the safety file

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- The Principal Contractor shall provide maintenance records of all Cranes (Mobile, Tower, Crawler and Overhead Gantry) to Eskom before the equipment is allowed to operate on the site.
- A certificate of approval for man cages and mobile working platforms shall be obtained from the Department of Labour Inspector.
- Registers of all lifting machines and tackle on site must be available for inspection purposes.
- Training certificates and valid certificates of fitness for operators of the equipment.
- Legal appointments for riggers, supervisors, crane co-ordinators and operators.
- The Principal Contractor shall provide an emergency rescue plan to Eskom for all tower cranes and man-cages.

### **3.51 Excavations, Trenches and Floor Openings**

All Contractors shall ensure that:

- All excavation work is done in accordance with the requirement of CR 13 of OHS Act, Site Excavation Procedure Requirements as well as with the required standard (see SANS 1200C and SANS 1200D). 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. The Contractor shall first submit a completed Excavation Permit to the client. The request shall be submitted far enough in advance to allow the Client to review Contractor's submittal. After reviewing the information, the client shall sign the notice indicating that it has been approved and return a copy of it to the contractor. The contractor may commence work after receiving signed notice;
- For all trenches or excavations over 7 meters deep, contractor must have the sloping, shoring or shielding method reviewed by Professional Engineer of discipline. The design must be submitted to the Client as an attachment to the excavation permit;
- Prior to commencing work on any excavation or trench, utility owners shall be contacted and advised of the proposed work and to determine the location of all underground installations; i.e., sewer, telephone, water, fuel, electrical, etc.;
- Overhead hazards shall be assessed and dealt with prior to commencement of work;

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- Adequate precautions shall be taken by the Contractor to prevent slumping of excavations, as well as to prevent rocks and loose material falling onto workers;
- All excavations done by the Contractor are to be clearly demarcated and barricaded to prevent accidental access;
- Only solid barricading will be used at areas where a fall hazard is present. Solid barricading and / or hole covers shall be provided around all holes or openings to prevent any person being injured as a result of a fall;
- Barricading must be placed as close as practicable to the excavation;
- If an excavation or trench endangers the stability of buildings or walls, shoring, bracing, or underpinning will be provided. Excavations and trenches that are adjacent to backfilled excavations or trenches, or which are subject to vibrations from railroad traffic, road traffic, blasting in open cast mining or the operation of machinery (e.g., shovels, cranes, trucks), must be secured by a support system, shield system or other protective systems (i.e., sheet pile shoring, bracing);
- Where it is impracticable to provide fixed guard railing, effective removable barriers shall be provided at all unguarded openings in guard railing or floors, and shall be maintained in position at all times until the hazard no longer exists;
- Warning signs and flashing warning lights at night shall be displayed in suitable positions to warn any persons approaching the area of the location and extent of any excavation;
- No load, material, plant or equipment shall be placed or moved near the edge of any excavation where it may cause it to collapse and consequently endangers the safety of any person, unless precautions are taken;
- All excavations must be on the register and inspected daily and declared safe by the contractor's appointed competent person before work commences and after inclement weather, and findings shall be noted in the said register;
- There shall be a supervisor present at all times while work is being performed in an excavation;
- There shall be an escape ladder every twelve meters in all excavations and;
- No work shall commence in an excavation unless the excavation has been declared safe in writing by the appointed competent person.

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### **3.52 Barricading (Guarding of Excavations, Trenches and Floor Openings)**

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

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

- Name and contact detail of person and Contractor Company that is responsible for the barricading shall be posted on the actual barricading;
- All barricading shall be of the rigid type;
- All openings and edges must be barricaded with solid barricading to withstand an impact of at least 200 kg;
- Only solid (scaffolding or stand-alone) barricading with Orange “Snow Netting” (which needs to be maintained and only as a temporary solution) will be allowed;
- Ballard’s (containers filled with liquid) can be used as solid barricading (exempted for use inside power plant units);
- Physical barriers to prevent persons falling into openings in floors, stairwells, staircases, open-sided buildings and any structure in the course of erection, where dangerous openings exist and;
- Contractors must pre-plan the delivery of floor grating, stair treads, landings and handrails to ensure safe access and protection for persons working on structures.

No danger tapes are allowed for barricading purposes.

The contractors barricading standard must accompany the SHE plan.

### **3.53 Electrical Installations and Machinery on Construction sites**

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

Before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of, and guard against, danger to workers from any electrical cable or apparatus which is under, over or on the site;

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The Principal Contractor shall ensure that all parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;

The control of all temporary electrical installations on the construction site is designated to a competent person who has been appointed in writing for that purpose;

All temporary electrical installations used by the contractor are inspected at least once a week. This must be done by a competent person and the inspection findings must be recorded in a register that is kept on the construction site; and a Certificate of Compliance (CoC) must be issued by a competent person for each installation.

All electrical machinery is inspected by the authorised operator or user on a daily basis.

The person inspecting the electrical machinery must use the relevant checklist when conducting the inspection. He must also record the findings and keep the register on the construction site

### **3.54 Permit to Work**

Contractors must 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 the type of work requires a permit, then contractors must 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 e.g.

- Operating Regulations for High Voltage Systems;
- Plant Safety Regulations;
- Pulverised Fuel firing regulations;
- Hot work;
- Radiation and;
- Trench & excavation;
- Confined space work.

**Note:** Once any plant is safety cleared a permit to work is required to do any work activities on the plant.

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Principal Contractors and contractors must send employees (Supervisors) on responsible person course to enable them to take out permit to work.

The Client is to provide more details on the permit to work system for the specific work to be conducted by the Principal Contractor.

### **3.55 Radiography, Ultrasonic, Non-Destructive Testing (NDT)**

The *Contractor* carrying out radiography, ultrasonic or other non-destructive testing (NDT) on the site must comply with the requirements of the relevant legislation, codes of practice and any other applicable *Client* requirements.

In particular, the *Contractor* shall ensure that:

- No radioactive sources may be brought onto site without prior written consent of the *Client* Agent/Manager;
- The Contractor must inform the Engineer in writing of radiological activities including NDT testing using radiation;
- At least one day in advance the *Client* Agent/Contracts Manager will be notified so that arrangements with Medupi RPO can be done. The RPO will avail himself to inspect the radiation vehicles and sources. If the company do not comply with the requirements, access will not be granted. If they comply the RPO will grant them access;
- The *Contractor* take special care when radiation (density test) is done and ensure that people are informed and cleared from the area;
- Where a statutory appointment exists, the *Contractor* shall appoint in writing, a suitably qualified and experienced Radiation Protection Officer to provide advice on the observance of the law and other relevant health and safety matters;
- No radiation sources will be stored on site inside containers. It can only be stored if permission was granted by the RPO and suitable signs are erected and a suitable storage area has been identified. Sources must be stored according to legal requirements and removed from site after use. All employees need to be informed of the sources that will be stored on site and strict access to the area will be maintained;

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- Radiography areas are clearly identified by the erection of suitable barriers, sirens, warning notices and / or flashing lights.
- Vehicles transporting radioactive materials/isotopes shall be clearly identified and kept locked when unattended;
- Radiation operators must submit proof of certification before commencing work;
- All *Contractors* must be informed of X-ray activities;
- X-ray and radiography work may only commence with a valid permit to work.

***Refer to requirements in:***

- Eskom Standard: Radioactive sources for non-nuclear stations
- SANS code of practice: 100228: "Code of Practice for the Identification and Classification of Dangerous Substances and Goods". Published by the South African Bureau of Standards.

**3.56 Blasting (if required)**

- Requirements of the Explosives Regulation of the OHS Act shall be adhered to;
- A copy of the written permission from the Chief Inspector of Department of Labour shall be obtained before use of any explosive material – refer to requirement in Explosives Regulation 13 of the OHS Act;
- Requirements for the transporting and storage of explosives to be in accordance to Explosives Regulation 13.4 of the OSH Act and SANS 100228 "Code of Practice for the Identification and Classification of Dangerous Substances and Goods" as published by the South African Bureau of Standards;
- Should blasting be necessary during the construction phase, the necessary authorisation must be secured from the relevant local municipality. Adjacent land owners must be notified prior to the blasting activities on site;
- The Construction operations may necessitate that ground and rock be blasted. A siren shall be sounded prior to a blast. Warning flags shall be displayed at the entrance to the area of the blast and guards will be placed at strategic points;

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- Should the Contractor be required to carry out blasting operations, he is to fully acquaint himself with, and adhere to the blasting procedures and legislation. Every blast must be cleared with the appropriate Client before charges are placed;
- Only a licensed operator is allowed to blast;
- For all blasting operations, a blasting mat (e.g. conveyor belts) shall be used to cover the blasting area so as to reduce the amount of flying debris;
- Inform all people in the area where the blasting is going to take place.

### **3.57 Working near Public Roads**

- The Principal Contractor, his employees and Contractors required to work on or nearby roadways shall wear high visibility vests as a minimum at all times, 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 so as to prevent unauthorised access;
- Road works e.g. excavations, barricaded areas, shall be protected by red cones or flags during daylight and by red or amber flashing lamps at night;
- Road traffic warning signs shall be placed well ahead of the work area alerting of road workers ahead;
- The Contractor shall ensure that operations are in compliance with the requirements of the National Road Traffic Act (Act no 93 of 1996).

### **3.58 Work Co-ordination Process**

Work coordination process is designed for monitoring and coordination of activities for Contractors working within the same area. It allows work to proceed without risk to the health and safety of Contractor personnel, visitors and client personnel.

The responsible manager must ensure that work interfacing is avoided during the planning stage of activities. If work interface cannot be avoided, both Contractors must conduct a joint risk assessment and must be accepted by Eskom representative before work commences. All emerging hazards and risk must be identified on the DSTI/risk assessment and communicated by both contractors working in the same area.

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The following shall be taken into consideration:

- Whenever there is more than one contractor working in one area, there shall be a documented interface process;
- Where there are agreements between different contractors, those agreements shall be written and signed off by the client and site/plant owner;
- It is crucial that there is link between the risk assessment required for the permit to work in terms of PSR and the task risk assessment, as these risk assessments identifies critical controls required to execute the work.

### **3.59 Environmental Management**

Contractors shall comply with the Projects' Environmental Management and associated approvals and related requirements.

Minimum requirements for compliance by contractors:

- Ensure that the Method Statements are submitted to the ECO for approval before any work is undertaken. Any lack of adherence to this will be considered as non-compliance to the specifications.
- Ensure that any instructions issued by the Engineer, on the advice of the ECO, are adhered to.
- Ensure that there must be communication tabled in the form of a report at each site meeting, which will document all incidents that have occurred during the period before the site meeting.
- Ensure that a register is kept at the site office, which lists all the transgressions issued by the ECO.
- Ensure that a register of all public complaints is maintained.
- Ensure that all employees, including those of sub-contractors receive training before the commencement of construction in order that they can constructively contribute towards the successful implementation of the environmental requirements of the Contract.

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- Ensure compliance with the environmental requirements, relating to the provision of adequate resources for the implementation and monitoring of the requisite environmental controls.
- Compile an Environmental monitoring plan outlining all the construction activities, associated environmental impacts and how they will be mitigated;
- Ensure that the project pricing makes provision for environmental costs.
- Contractor shall attach a company waste management plan including the typical waste inventory and templates used for keeping waste records.
- Include environmental considerations as an item on the agenda of the monthly site meetings.
- Compile and implement the necessary Method Statements; and Undertake environmental awareness training of all site staff during the commencement of each Contract, with regular refreshers for the duration of the Contract.
- Ensure that the environmental authorizations required in terms of National Environmental Management Act, 1998 (section 24) are sought prior any work with no authority approvals commence.
- Ensure all environmental files and documentations requested by the client are compiled and get approved prior commencement.

#### **3.59.1 Spillage of Hazardous Chemical Substances**

- Any spillages that occur shall be treated in accordance with the requirements indicated on the MSDS.
- Identify appropriate storage areas for stockpiling of materials, storage of hydrocarbons and storage of hazardous substances and ensure that these areas are appropriately prepared for their purpose.
- Disposal of hazardous substances shall be done in terms of the relevant legal requirements.
- Limit spillage of hazardous substances or substances with the potential to cause contamination of the environment.
- Develop emergency protocols for dealing with spillages particularly where these pose a pollution risk or involve hazardous substances.

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- Compile and implement the necessary Method Statements; and undertake environmental awareness training of all staff.

### **3.59.2 Herbicide usage**

Only registered pest control operators may apply herbicides on a commercial basis. All staff applying herbicides shall be trained in the application thereof, and shall be provided with suitable PPE.

The application of herbicides shall be in accordance with the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act No. 36 of 1947. Only approved and tested herbicides with a low environmental risk shall be used.

An herbicide register for usage shall be compiled and maintained, and a copy handed to the project leader / environmental advisor on completion of the project / contract.

### **3.59.3 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 educated in fire prevention and will be held responsible to avoid the risk of fire. Firebreaks shall be created to prevent fires from spreading.. No open fires are allowed on site. The contractor shall ensure that operations are in compliance with statutory requirements at all times. The Contractor Environmental Officer shall ensure that in areas with a high fire danger rating, staff are made aware thereof. 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.

### **3.59.4 Waste**

All waste generated shall be disposed of at a registered landfill site. A register of both hazardous and general waste shall be kept. A waste management plan shall be compiled before commencement of work. Records of waste disposal shall be kept and updated all the time. No waste, be it biodegradable or not, shall be left on site once work has ended.

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Domestic and hazardous waste generated shall not be burned, buried, or disposed of on Eskom or Landowner property, but will be controlled and removed to a registered waste site on a regular basis (Daily / Weekly). The Principal Contractor and contractor working on site shall ensure that oil, fuel, and chemicals are confined to specific and secure areas throughout the construction period. These materials shall be stored in a bunted area with adequate containment for potential spills and leaks.

The contractor must take the waste to a registered landfill site. Where the Municipality does not have a weighbridge, the Contractor is responsible for obtaining a formal notification to this effect.

Contractors shall ensure that sufficient waste bins / containers, with lids are made available for waste control. The contractor shall comply with the requirements of NEM: Waste Act 59 of 2008.

Quantities of disposed waste shall be recorded and reported on a monthly basis. Set up system for regular waste removal to an approved facility and minimize waste by sorting wastes into recyclable and non-recyclable wastes;

#### **Equipment maintenance and storage:**

- Ensure that all plant is in good working order;
- Undertake maintenance within specified area (workshop); and use drip trays for all stationary or parked plant and when servicing equipment away from designated areas

#### **3.59.5 Material requirement**

The use of any material or property belonging to any landowner shall not be permitted prior to arrangements with the relevant landowner. Written proof of such agreement shall be handed to project leader / co-coordinator for record keeping

#### **3.59.6 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, all construction works shall occur between specific working hours. This shall be stipulated in the contract.

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Mitigation measures to be implemented as required / agreed upon with the project leader / environmental advisor.

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

### **3.59.7 Environmental Incidents**

All environmental incidents such as pollution (air, water, land, noise, etc.), bird kills, and animals killed, plants destroyed, public complaints etc. shall be reported to project leader and / or environmental advisor within 24 hours of its occurrence.

All environmental incidents occurring on site shall be recorded according to Eskom Environmental Incident Management Procedure 240-133087117 or as amended, detailing how each incident was dealt with. Proof thereof must be kept in an incident register.

The Contractor shall be held liable for any infringement of any Environmental statutory requirements.

### **3.59.8 Water**

No construction shall be allowed within the 1:100 year flood lines. Should any pollution of the watercourse occur, the Department of Water Affairs and Forestry must be notified immediately

Water usage on site shall be verified with the substations/power stations responsible person, the project leader / environmental advisor to ensure compliance with legislation. Borehole water shall be verified as suitable for human consumption. All incidents related to water contamination shall be reported within 24 hours. Records of water quantities abstracted should be kept.

Chemical toilets shall not be within close proximity of the drainage lines / ways.

## **3.60 Incident Management**

The Contractor shall report all incidents/accidents as required in terms of the legislation.

All incidents/accidents including near miss incidents, first aid, medical treatment, lost time incidents (disabling injuries & fatalities); OH&S Act Section 24 and 25 incidents; electrical contact; major equipment damage; chemical spillage and other Environmental Incidents shall be reported to the Contracts/Project Manager within 24 hours of them occurring or, before the end of the work shift.

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The contractor shall ensure that all incident reporting classifications, recording, classification and investigation requirements are done according to the requirements set out in the Eskom document 32-95 (Occupational Health and Safety Incident Management Procedure - latest revision). This may include investigation format or documentation requirements.

The objective of incident investigation, should not only be a legal requirement, but should establish why and how the incident occurred and find out the real root cause of the incident and to decide on precautionary measures that are required to address the root cause to prevent any further recurrences of the same or similar incidents.

Any lost time incident, (LTI) section 24 or major environmental incident. Principle contractor Chief executive officer will be asked to do a presentation to Eskom project director on site. Note this is not for site manager to present. (CEO of Principal Contractor will also on behalf of his contractor do presentations. All Incidents shall be presented to Eskom Management within seven days (counting from the day incident occurred).

If it is found that the Contractor or their Subcontractors are not reporting incidents, steps (which may include disciplinary action) shall be taken against the line management of the Contractor and /or Subcontractors.

The Contractor shall ensure that all accidents / incidents are investigated by a competent person and are discussed at the relevant SHE committee meeting. The Employer reserves the right to participate in any accident / incident investigation if the accident / incident is directly linked to any activity related to the Works.

Investigations shall begin as soon as practicable after the incident / accident has occurred. Where applicable and with appropriate authorisation (when required), photographs shall be taken of the scene of the incident as well as any equipment involved. Interviews with witnesses shall be conducted as soon as possible after the incident occurred whilst it is still fresh in their memory and if necessary followed up later to determine if further information was recalled.

The Employer reserves the right to conduct an independent investigation of any accident/incident reported by the Contractor or Subcontractors over and above their own investigations. The

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Contractor and Subcontractors shall co-operate fully with the investigation and implement any additional improvement measures.

The Contractor shall investigate all incidents immediately and supply to the Contracts/Project manager, which shall include:

- Date, time and place of incident;
- Description of incident;
- Root causes of incident/accident;
- Type of injury and/or (if any);
- Medical treatment provided (if any);
- Persons involved;
- Loss or damage sustained (if any);
- Names and contact details of witness/s;
- Description of corrective action to prevent a recurrence (with clear deadlines and persons identified for taking remedial action).
- All corrective actions shall be closed out within 14 days of the date of the incident, unless otherwise agreed by the Engineer.

### **3.61 Contractor's SHE Plan**

The Principal Contractor shall prepare a suitable and sufficient site specific SHE plan in accordance with the SHE Specification requirements, submitted with tender documents that will indicate to the Employer the level of compliance to the SHE Requirements. The *Principal Contractor's* SHE Plan will be assessed for compliance so as to confirm compliance to the requirements in the *Client* SHE specification. The *Contractor* will ensure that the site specific SHE Plan is submitted at least one month prior site establishment, for the works permit application. Once compliance is confirmed and works permit obtained, only then will the *Contractors* are allowed site access to start with site establishment.

The Contractor's SHE Plan shall demonstrate the management process and procedures that shall be adopted to ensure compliance to requirements listed in this Specification and other contract documents requirements. The SHE plan shall identify each construction activity to be undertaken

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by the *Contractor*, the foreseeable internal and external hazards, the specific precautions and controls that shall be necessary to ensure that the works proceeds safely and without risks to health or adjacent operations.

Upon discussions with the *Principal Contractor*, a final accepted SHE plan would be signed and approved. The *Principal Contractor* is thereafter required to do the same when procuring other *Contractors*. The *Principal Contractor* will not be allowed to commence work on site until the SHE plan has been approved.

When a *Principal Contractor* intends appointing a *Contractor*, the *Principal Contractor* shall ensure that his SHE Plan is based on the Eskom SHE Specification that was issued for the project and he shall further more ensure that the activities of the *Contractor* are included in the SHE Plan to be submitted for approval.

The SHE Plan shall further demonstrate the Contractor's commitment to safety, health and environmental requirements and shall, as a minimum include the following elements:

- a. Compliance to this Specification
- b. The Contractor SHE Policy. (OH&S Act section 7)
- c. Indication of Competent Supervision (CV's to be included). (Construction Regulation 8(7))
- d. Documented proof of assessment of competencies of appointed persons (e.g.: scaffold erectors, riggers etc.)
- e. Duties and safety responsibilities of all appointed persons.
- f. Selection, placement and training procedures, including induction and ongoing training in 'Basic Safe Work' and Occupational Health & Safety training for newly hired or promoted supervisors. (OH&S Act section 8(2)(i))
- g. Occupational Health & Safety communications and meetings, including daily safe task instructions and project SHE meetings.
- h. Assessment and management procedure for their Subcontractors, including audit requirements for SHE Plans.
- i. Safety awareness promotions.

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- j. Occupational Health and Safety Workplace Environment controls, including provision for monitoring employee exposures to noise, dust, etc. (Hazardous Chemical Substances Regulation 4)
- k. Personal Protective Equipment procedure and rules. (OH&S Act section 8, General Safety Regulation 2)
- l. Control of dangerous and hazardous substances. (Hazardous Chemical Substances Regulations, Section 43 of OH&S Act, 1993)
- m. System of hazard identification and risk control, such as Risk Assessments, Daily Safe Task Instructions and Communications. (OH&S Act section 8, Construction Regulation 9)
- n. Inspection and maintenance of plant, tools and equipment prior to introduction to the Project Site (and to other places, if any, as may be specified under the Contract as forming part of the Site) and regularly thereafter. (Construction Regulation 23)
- o. Accident and incident reporting, recording, investigation and analysis, which ensure that corrective action, are taken and this action is communicated to report initiators. (General Administrative Regulations 8 & 9)
- p. Evacuation and emergency planning arrangements; (Construction Regulation 29) Environmental Regulations for Workplaces 9)
- q. Substance abuse policy and procedure and programme. (General Safety Regulation 2A)
- r. Workers welfare facilities. (Construction Regulation (30)
- s. Daily site safety inspections and audits processes.
- t. Letter of good standing with a compensation insurer
- u. Identification of Environmental Aspects, their associated impacts, mitigation measures and management thereof.

The Contractors SHE Plan shall be reviewed from time to time (and in any event as and when required by the Engineer) to ensure that it fully addresses all the issues and complies with requirements of the SHE Specifications and contract.

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## **3.62 Auditing**

### **3.62.1 Approval and compliance of principal contractor SHE plan**

The Contractor's SHE Plan will be audited against compliance checklist so as to verify compliance to the requirements of the Eskom SHE specifications. Once there is compliance only then will the principal contractors SHE plan be approved by the Contracts/Project manager or Client safety representative. The implementation of the SHE Plan shall be assessed / audited by Eskom personnel on a regular basis. This will include physical conditions evaluation.

### **3.62.2 Eskom SHE audits**

Eskom shall evaluate all contractors' SHE performance on an ongoing basis against the legal, Eskom requirements, SHE specification and the contractors SHE plans.

**Note:** Eskom reserves the right to conduct unannounced audits on contractors

There will be monthly audits conducted by Eskom on the principal contractor/s and/or appointed contractors. These audits shall be attended by the contractor's site manager or his representative and the contractor's safety team. Non-compliance raised during these audits shall be closed by the Contractor within 30 days. Audit will be conducted on specific audit criteria and sampling of different site areas. The Safety manager and Safety Officer shall be available at all times when these audits are conducted.

Ad hoc audits will be conducted when a need arises and the Contractor's safety manager and safety officer to avail themselves for such audits.

If there are any findings / non-compliance identified as serious in these audits, an activity will be stopped for that specific Principal Contractor and appointed contractor. Refer to section on "Work Stoppage" in this SHE Specification.

### **3.62.3 Contractor audits**

Principal Contractors are required to conduct internal audits on both their employees and their appointed contractors on the implementation of their SHE Plan on a monthly basis or when the scope of work changes. A summary of the findings and the proposed corrective actions shall be submitted to Eskom project manager within one week after completion of the audit. Where

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appointed contractors are audited by the principal contractor a copy of the audit report shall be submitted to the appointed contractor within 7 days of the audit.

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

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

### **3.63 Non-Conformance and Compliance**

Any non-compliance to any health and safety requirement in this SHE specification is subject to discipline in terms of the Eskom Procurement and Supply Management Procedure.

Principal contractors are required to implement a non-conformance procedure (if not already in place) for issuing to contractors for transgressions. The procedure can include “quality” related non-conformance issues. Similarly, appointed contractors must implement a non-conformance procedure.

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

Contractor project management must monitor the close out non-conformances issued, in not doing so; any recommendations made may not be implemented.

Action plan with proposed corrective actions, target dates and a responsible person for the action must be submitted for all non-conformance raised.

Should the contractor fail to provide adequate PPE to their employees for the tasks being performed and/or to visitors; failure to enforce the wearing of such PPE will be viewed as a transgression of the legislative and Eskom requirements.

### **3.64 Reporting and SHE Governance**

Principal Contractor/s and their appointed contractors must develop a communication strategy outlining how they intend to communicate SHE issues to their staff, the mediums they will employ

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and how they will measure the effectiveness of their SHE communication. Below is a brief on how communication should take place. Where project meetings are conducted on site, SHE shall be included as a standing agenda point and minutes of these meetings shall be available on site at all times. Minutes of meeting must be compiled and filed in the relevant SHE files. All employees shall have access to these minutes. Attendance register shall be kept for all the health and safety meetings. The terms of reference shall be established for each governance structure on the project.

#### **3.64.1 SHE Performance Status Reports**

The Contractor shall provide OHS statistical and Non-statistical reports, dashboards, presentations as per the Client requirements on weekly and monthly basis.

#### **3.64.2 Contractor's SHE Meeting (SHE Managers/Officers - Eskom and Contractors)**

The Project Site Management will host on a monthly basis a SHE Managers meeting in which all Contractors must attend. The meeting discusses SHE performance, progress and improvement initiatives etc.

#### **3.64.3 Statutory Health and Safety Committees**

The principal contractor shall establish statutory health and safety committee in terms of Section 19 of the OHS Act, Act. Similarly, appointed contractors shall establish their own statutory health and safety committee. All appointed contractors shall be members of the principal contractor's safety committee.

The Committee shall meet to discuss SHE issues concerning the current work being performed, training, upcoming work and SHE requirements, incidents and lessons learned specific SHE problems, safety performance, audit findings action plans and other relevant SHE issues. Health and safety committees shall follow up on incident investigation recommendations and shall keep record of all recommendations made by the committee. Statutory health and safety committees may make recommendations for the revision of current standards, procedures and practices.

SHE representatives for a workplace shall be members of the relevant workplace safety committees (Refer to Section 19 (2) (a) of the OHS Act). The number of persons nominated by employer must not be more than the Health and Safety Representatives on that specific statutory health and safety committee. (Refer to Section 19(2)(c) of the OHS Act)

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A statutory health and safety committee meeting shall be held at least 3 monthly (where medium to high risk work is involved, more frequent if required), and all appointed members of the committee shall attend the meeting.

The chairperson of the health and safety committees shall be selected and appointed by the contractor. The appointed chairperson must be competent to chair meetings and be able to make informed decisions.

Minutes and record of action items shall be kept of all health and safety committee meetings. Action column with target dates and responsible person shall be clearly visible on the minutes and shall be completed during the meeting. The original copy of the minutes and record of the action items must be signed by the chairperson.

**Listed below is a preferred agenda (The following serves as the guideline for the SHE Committee meeting agenda):**

- Matters arising from previous minutes
- Matters arising from Contractor's SHE meetings.
- Audit results and feedback (corrective actions with target dates)
- Review Health and Safety Representative Inspection Reports
- Review
  - Incident investigation reports
  - Non-Conformances
  - Announcements (near miss/injury/damage)
  - Follow up on recommendations made by the employer in incident investigation reports
- Accident Prevention – Safety Promotion
  - Planned Job Observations
  - SHE Training
  - Protective clothing and equipment
  - Incident Announcements / Recall

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- Forthcoming High hazard activities.
- Non-conformances.
- Housekeeping.
- Work permits.
- Work procedures.
- Hazardous materials / substances.
- Fire Prevention
- Occupational Hygiene Assessments, Health Risks and Actions
- Security
- Construction vehicles and mobile equipment
- Rules, Instructions
- Public Safety
- Environmental Management
- Emergency Preparedness
- Statistics report
- Closure

#### **3.64.4 Tool box talks / Daily team talks / pre job meetings**

A meeting must be held prior to the commencement of the day's work with all relevant personnel associated with the work task in attendance. The job, relevant procedures, associated hazards, safety measures, i.e. the task risk assessments shall be discussed. Each employee who attends the briefing shall sign an attendance list of that pre-job brief form undertaking that they have an understanding of the tasks, risks and control measures required.

Where possible, tool box talks can be included in the pre-job brief meetings. If this does not occur, then weekly tool box talks must be conducted. The toolbox talk topics will be based on SHE issues pertaining to the construction site and or the project. The topic contents shall be in writing. Attendance registers with the topic listed shall be kept.

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### **3.65 Contractor OHS Performance Evaluation**

Eskom shall evaluate Contractor's OHS performance on an on-going basis against the Eskom requirements.

A post-contract review evaluation will be conducted and will be supported by the objective evidence documented during the term of the contract.

The following criteria (but not limited to) shall be considered for the review:

- Accident and injury data for the contract;
- OHS non-conformances;
- Duration and effectiveness in addressing and closing out OHS deficiencies/corrective actions;
- Legal compliance with OHS requirements;
- Number of behavioural safety observations conducted by contract manager and the contractor supervisors;
- Close-out of Incident Investigations;
- No. of staff members (incl. subcontractors and suppliers) who contravened the Eskom Lifesaving rules;
- Prohibition and contravention notices issued by Department of Labour/Dept. of Mineral Resources notices, Department of Environmental affairs etc;
- Contributions and effort made to improve OHS performance;
- Contractor /Supplier total number of incidents:
  - Fatalities;
  - Lost-time injuries;
  - reportable incidents (Department of Labour/Department of Mineral Resources/Department Environmental affairs).

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### **3.66 Employee's right of refusal to work in an unsafe situation**

Employees have a duty to take reasonable care of their own as well as other person's health and safety at work and to cooperate with the employer, carry out lawful orders, including reporting unsafe situations and incidents.

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 is created that promotes zero harm by empowering employees and Contractors to take responsibility for their own safety and that of others.

### **3.67 SHE File**

A SHE file means a file or other record in permanent form, containing the information about the safety and health management system during construction and all information relating to the post-construction phase after handover to the client, so that the client can maintain the works in a healthy and safe way.

All contractors are required to keep a SHE file on every project site. If there is more than one site per project, a file per site shall be kept at that site. Contractors may keep additional files at their head office as additional records. The SHE file shall be maintained by all the contractors on their construction sites and shall be available on request for audit and inspection purposes.

The SHE file shall consist of the requirements in terms of the project's safety specification, the contractor's safety and health plans. The sequence of filing the documentation must be kept in the same sequence as listed in this SHE specification and the SHE plan. Each record shall be separated by partitions to afford easy identification and access. Each partition must be labelled.

On completion of the construction work/project, the principal contractor must hand over a consolidated health and safety file to the Contracts/Project manager. The principal contractor must also hand over all drawings, designs, lists of materials used, and other applicable information about the completed structure, as well as the list of subcontractors, the agreement, and the type of work completed.

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In case where the project is extended, should the documentation in the SHE files become cumbersome, the older documentation must be archived in boxes which shall be correctly labelled and be available for auditing purposes. The archived documentation must be handed over at the completion of the project.

The Principal Contractor must also record on the file:

- Information about removal or dismantling of installed plant and equipment;
- Information about equipment needing cleaning and maintenance, for future purposes;
- Nature, location and markings of services and;
- As-built drawings

### **3.68 Work Stoppage**

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

The Client may stop any activity where an unsafe act or unsafe condition that poses or may pose an imminent threat to the safety and health of an individual or create a risk of degradation of the environment. This includes any unauthorised work or service performed by, or legally or contractually non-compliant acts or omissions by, any contractor contracted to work at that site.

The temporary stoppage of an activity/activities or task(s) may be due to SHE concerns, including the following circumstances which shall not warrant any financial compensation:

- Ad hoc 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 supplier shall be required to comply with, and/or verify, the conditions stipulated in the work stoppage instruction pack and;
- Ad hoc safety intervention by any person, especially SHE functionaries, may be due to unsafe work or unsafe behaviour by the 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.

**The process to be followed is:**

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- The relevant activity must be stopped;
- The Eskom responsible Manager and/or Principal Contractor and his contractors shall immediately remove the workforce from the work area and correct the health and safety deficiencies by allowing only the people in the area that is competent to make the area safe;
- The Principal Contractor and his contractors shall ensure that no other work is being performed during this time. Should the estimated time from the outset to make the area safe where life threatening/imminent danger situations exist, then the area will be barricaded and a sign placed with the wording “Unsafe Area – Authorized Access Only”;
- The Eskom responsible Manager shall review the affected parts/sections of the SHE specification with the purpose of providing sufficient SHE information to the Principal Contractor;
- The Principal Contractor shall then revise the relevant sections in the SHE plan to accommodate the changes;
- The Eskom responsible manager must ensure that the revised provisions in the SHE plan are adequate and must approve it before the work activity commences and;
- Before the workforce is allowed back in the area, Principal Contractor and his contractors shall ensure:
  - The area is re-inspected by Contractor Safety Practitioner and supervisor and note corrective actions taken and;
  - Declare the area safe for work by signing off on the “work stoppage” notice issued by the Eskom responsible Manager.

**NOTE:** *Work stoppages that are initiated due to SHE concerns, non-compliance, or poor performance related to the contractor’s works or services shall not warrant any financial compensation claim lodged against Eskom where the contractor has not met the requirements defined legally or contractually.*

Further note that Eskom do have two compulsory work stoppages per annum. Safety discussions will be held on those days and no financial compensation claim lodged against Eskom. This is in line to support our safety culture of Zero Harm.

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### **3.69 Hours of Work**

The requirements of the Basic Conditions of Employment Act, Chapter Two “Regulation of Working Time” must be adhered to. All contractors are required to maintain an accurate record of time worked by each employee.

#### **3.69.1 Normal work**

All work conducted on site shall fall within the legal requirements in accordance with the Basic Conditions of Employment Act. Contractors will notify their Eskom Supervisor or contracts/project manager of any work that needs to be performed after hours according to the agreed arrangements. (The application needs to be submitted timeously). Where applicable, the notification should include proof of application, for overtime, to the Department of Labour and /or the letter of approval from the Department of Labour.

#### **3.69.2 Night work**

When night work is to be performed, contractors shall provide sufficient lighting to enable the entire work site to be illuminated to a degree that employees will not work in dark (un-illuminated) or dimly lit areas. Care must be exercised as not to use few lights with high light intensives, as this will cause night blindness.

If work is continuing from day light into night, at dusk, a tool box talk must be held where all employees will be advised of the hazards of night work and the extra precautions which require to be taken, i.e. poor housekeeping, stepping on uneven ground, stepping into holes etc.

#### **3.69.3 Overtime**

When overtime is required to be performed, the appointed contractors shall inform the principal contractor of such action. The principal contractor shall inform the Eskom project manager of such function. Contractors shall be aware of the effects of human fatigue and regulate overtime accordingly. The baseline risk assessment must be reviewed to include the management of overtime work.

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### **3.70 Omissions from Safety and Health Requirements Specification**

By drawing up this SHE specification Eskom has endeavoured to address the most critical aspects relating to SHE issues in order to assist the Contractor in adequately addressing the health and safety management of persons on site.

Should Eskom not have addressed all SHE aspects pertaining to the work that is tendered for, the Contractor needs to include it in the SHE plan and inform Eskom of such issues when submitting the tender. The Contractor needs to ensure that all applicable SHE requirements are identified and included in their management system.

### **3.71 Project Close-out/Contract Sign-Off**

On completion of the project, all appointed contractors shall close out their project documentation, SHE files and site demobilisation plan and forward such to the principal contractor. The principal contractor shall likewise close out his/her project documentation and SHE files and forward such to the Eskom Contracts/Project manager. All required documentation shall be submitted and handed over using relevant medium (hard copy files as well as soft copies in hard drives/USB) as per Project procedure (Project Closeout and H&S documentation, 348-9942695 and De-establishment and Rehabilitation Inspection Checklist (348-682304)). A checklist shall accompany the submission to verify that all documents are submitted/or handed in to the client. The ECO shall sign off the contractor documents and site handover from the environmental side.

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

No invoice shall be processed before work done is accepted.

## **4 Process for Monitoring**

### **4.1 Revision Period**

All QMS Documents shall undergo a 3-yearly compulsory revision.

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## **4.2 Training**

No project specific training required to implement the process documented in this document beyond normal job function.

## **5 Acceptance**

This document has been seen and accepted by:

<b>Name</b>	<b>Designation</b>
Dexter Khuzwayo	Contracts Manager
Brenda Mgidlana	Quality Manager
Zandi Shange	General Manager

## **6 Revisions**













<b>Date</b>	<b>Rev.</b>	<b>Compiler</b>	<b>Remarks</b>
June 2022	0	P Sumbana	First draft SHE specification (new document).
July 2022	1	N Molapo	Final review on first draft - Documentation and Quality review done.

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## APPENDIX A: ESKOM DOCUMENT HIERARCHY




<p><b>Annexure A: SHEQ Policy</b></p>  <p>32-727 SHEQ Policy poster rev 6.pdf</p>	<p><b>Annexure B: Acknowledgement form for Eskom SHE Rules</b></p>  <p>Annexure B - Acknowledgement of</p>	<p><b>Annexure C: Contractor Health and Safety Requirement</b></p>  <p>Contractor Health and Safety Req 32-13</p>
<p><b>Annexure D: Life Saving Rules Standard</b></p>  <p>Life Saving Rules Standard 240-621962</p>	<p><b>Annexure E: OHS Incident Management Procedure</b></p>  <p>32-95 OHS Incident Management Pocedur</p>	<p><b>Annexure F: Eskom PPE Spec</b></p>  <p>240-44175132 Eskom PPE Spec Rev</p>
<p><b>Annexure G: Smoking Policy</b></p>  <p>32-1126 Smoking Policy Rev 2.pdf</p>	<p><b>Annexure H: Substance Abuse Procedure</b></p>  <p>32-37 Substance Abuse Procedure Rev</p>	<p><b>Annexure I: Employee's Right of refusal to work</b></p>  <p>240-43848327 Employees Right of R</p>
<p><b>Annexure J: Emergency Planning Standard</b></p>  <p>32-123 Emergency Planning Rev 3.pdf</p>	<p><b>Annexure K: OHS Risk Assessment Procedure</b></p>  <p>32-520 OHS Risk assessment procedur</p>	<p><b>Annexure L: Eskom Vehicle Safety Specification</b></p>  <p>32-345 Eskom Vehicle Safety Specifi</p>

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## APPENDIX B: MEDUPI DOCUMENT HIERARCHY

<b>Annexure M: Project Closeout and HS Documentation</b>   348-9942695 Project Closeout and H&S Dc	<b>Annexure N: Contractor Weekly Report template</b>   348-9990544 Contractors Weekly R	<b>Annexure O: Handling of H&amp;S Non-conformities and Corrective and Preventative Action Work Instruction</b>   348-880771 Handling of H&S Non

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