Eskom	**OCCUPATTIONAL, HEALTH AND SAFETY SPECIFICATION**	**Group Capital Division**

Title:	**Tutuka Power Station Ash Disposal Facility Volume Increase Civil Works Project**	Document Identifier:	**ESK-TUT-230-40**
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Compiled by	**Verified by**	**Reviewed & Accepted by**	**Authorized by**
Primrose Manzini	**Patricia Malaza**	**Papi Thokoa**	**Natha Mulaudzi**
SHE Officer	**SHE Manager**	**Project Manager Construction**	**Site Project Manager**
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Content

1. Introduction

Eskom Tutuka Refurbishment Project is committed to achieving and demonstrating sound Occupational Health and Safety (OH&S) management by controlling OHS risks/impacts consistent with its SHEQ policy and objectives.

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 includes visitors and the general public who might be affected or exposed to our activities.

The aim of the Occupational Health and Safety (OHS) specification is to provide Contractor/s with:

- The overarching framework within which the Contractor is required to demonstrate compliance with certain high-level requirements for OHS.
- Establishes the manner in which the Contractor is to manage OHS risks in the execution of the contract, and
- The mandatory high-level project & scope of work specific OHS requirements that the contractor needs to adhere to in order to align & demonstrate commitment towards the zero harm of the persons during project deliverables execution for the duration of the contract.

The OHS Specification shall be included with the tender enquiry documentation to ensure that the tenderer is timeously made aware of:

- Eskom's requirements, including
- Eskom's compliance obligations (including Funders OH&S requirements where applicable)
- Information that might affect the health and safety of any person at work whether directly or indirectly;
- Activities that may have an impact on the direct and surrounding environment.

The Principal Contractor and their contractors are expected to develop a SHE plan which meets these requirements as well as the applicable legislation and other requirements specific to their context as a business.

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

The scope of the project includes the detailed design, engineering, procurement, manufacture, and installation of the Dust Handling Plant (DHP) upgrade with all the associated systems including but not limited to Electrical, C&I, Mechanical and Civil for two (2) units at Tutuka Power Station.

2.2 Purpose

This specification covers the following scope:

a) Tender Enquiry and evaluations;

b) Site establishment of a Contractor;

c) Tender deliverables execution phase; and

d) Contractor Site de-establishment.

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

2.3 Applicability

This specification is applicable to all Principal Contractors, Contractors, Service Providers, Suppliers and all the activities and processes carried out for and on behalf of Eskom Tutuka Power Station Refurbishment and Construction 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 as long as the applicable Eskom and statutory SHE requirements are identified in relation to the scope of work.

2.4 Effective date

This specification shall be implemented from date of approval.

3. Normative/Informative References

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

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.

3.1 Normative

[1] 32-727: Safety, Health, Environment and Quality Policy

[2] 240-62196227: Life-saving Rules Standard

[3] Occupational Health and Safety Act and Regulations No 85 of 1993 and its Regulations

[4] Construction Regulations of 2014 or latest edition as per government gazette.

[5] Mine Health & Safety Act No. 29 of 1996 and Regulations

[6] OHS Act 85 of 1993 and its regulations

[7] The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights)

[8] Civil and Building Work Act

[9] Compensation for Occupational Injuries and Diseases Act
[10] National Environmental Management Act 107 of 1998
[11] National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004)
[12] National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004)
[13] National Water Act 36 of 1998
[14] Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002)
[15] Animals Protection Act, 1962 (Act No. 71 of 1962)
[16] National Road Traffic Act, 1996 (Act No. 93 of 1996)
[17] 240-56927739- Group Capital Execution Assurance Construction SHEQ Operational plan 2021/22 - 2026/27.
[18] 32-95 Eskom Occupational Health and Safety Incident Management procedure
[19] The Vehicle and Driver Safety Management Procedure (240-62946386)
[20] 32-345 Eskom Vehicle Safety Specification.
[21] 32-126 Contractor health and safety requirements.
[22] 32-37 Substance Abuse Procedure
[23] All relevant South African legislation (national, provincial, and local)
[24] Applicable South African National Standards (SANS) for the scope of work/Project.
[25] Applicable International Standards
[26] Environmental Management Plan
[27] Environmental Authorisation
[28] Licenses/Permits
[29] 32-245: Waste Management Standard
[30] 32-345 Eskom Vehicle Safety Specification
[31] 240-54937439: Fire Protection/Detection Assessment Standard.
[32] 32-124 Eskom Fire Risk Management
[33] 240-43848327 Employees' right of refusal to work in an unsafe situation
[34] 32-418: Working from Heights Procedure
[35] 240-100979499: Personal Protective Equipment for work at Heights Specification
[36] 32-520: Procedure Manual for Performing Occupational Health and Safety Management and Environmental Management: Conducting EH&S Risk Assessment
[37] 32-123: Emergency Planning
[38] 32-407 Behaviour Safety Observation Procedure
[39] 32-726: SHE Requirements for the Eskom Commercial Process
[40] 39-98: Safe use of Lifting Machines

[41] 32-524 Manual, Developing a SHE Specification

[42] 32-1126 Eskom Smoking Policy

[43] 32-1134 Access Control at Eskom Premises

[44] 240-44175132 Eskom Personal Protective Equipment Specification (PPE)

[45] 240-56296995 Standard for Record Retention Periods

[46] 32-477 Safety, Health and Environment Training and Development Procedure

[47] 240-43921084- Fall arrester checklist

[48] Eskom Operating Regulations for High Voltage Systems

[49] Eskom Plant Safety Regulations (Low Voltage Regulations)

[50] 32-246 Work instruction for Reporting on Environmental Expenditure and Income

[51] 240-13307117 Environmental Incident Management Procedure

[52] 240-165016139 Asbestos Management Plan - Guideline

[53] 240-87103244 Asbestos Assessment Work Instruction (ESKOM AIA Document)

[54] Disaster Management Act 2002, Regulations issued in terms of Section 27(2) of the Act

3.2 Informative

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

[1] ISO 45001:2018, Occupational Health and Safety Management systems-Requirements (Contractor shall use as guideline)

[2] ISO 14001:2015, Environmental Management Requirement System

[3] Relevant South African National Standards for the task/Project.

4. Definitions

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

Aspect: An activity, product or service of the organisation which can/or has potential to interact with the environment.

Baseline risk assessment: (32-520 HIRA procedure) baseline operational risks refer to the health and safety risks associated with all standard processes and routine activities in the business.

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

Competent Person: means:

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

Construction Manager: 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.

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

Construction Work: means any work in connection with:

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

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

Critical Lifts: There are five categories for which a lift can be defined 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 and (4) any lift that exceeds 85 % of the crane’s load chart (5) any lift that utilises more than one lifting device (Tandem Lift).(6) Load transfers.(7) night lifting.

Designer: means any of the following persons:

A competent person who:

- Person who prepares a design
- Person who checks and approves a design
- Person who 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,
- An architect or engineer contributing to, or having overall responsibility for, the design
- A Building services engineer designing details for fixed plant
- A Surveyor specifying articles or drawing up specifications
- A Contractor carrying out design work as part of a design and building project, or an interior designer, shop-fitter or landscape architect.

Environmental risk assessment means a systematic process of evaluating the potential risks that may be involved in a projected activity or undertaking.

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

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

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

Hazard: means a source of, or exposure to danger

Hazard identification: 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

Impacts: Any change to the environment whether adverse or beneficial, wholly or partial resulting from environmental aspects.

Medical surveillance: 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

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

On Site/Site: Any workplace where the contractor or his employees performs contract related work.

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

Pre-Task Risk Assessment (DSTI): a meeting which is held prior to the commencement of the day's work with all relevant personnel associated with the work task in attendance.

Risk: the probability that injury or damage will occur.

Risk Assessment: 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.

Safety Health and Environmental file: 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.

Safety, Health and Environmental Plan: 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.

Safety, Health and Environmental (SHE) Specification: 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.

Safe Work Procedures: 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.

5. Abbreviations

Abbreviation	Explanation
ASIB	Automatic Sprinkler Inspection Bureau
COID Act	Compensation for Occupational Injuries and Diseases Act
CR	Construction Regulations 2014
CoC	Certificate of Compliance
DHP	Dust handling plant
DMR	Driven Machinery Regulations
DOL	Department of Labour
DSTI	Daily Safety Task Instruction
EA	Environmental Authorisation
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme Report
EMS	Environmental Management System
GCD	Group Capital Division
GSR	General Safety Regulations
HCS	Hazardous Chemical Substances
HIRA	Hazard identification and risk assessment
HV	High Voltage
CR	Construction Regulations of the Occupational Health and Safety Act No. 83 of 1993
ISO	International Organisation for Standards
JSA	Job Safety Analysis
LTIR	Lost Time Incident Rate
LV	Low Voltage
MHS Act	Mine Health and Safety Act (Act No. 29 of 1996)
MSDS	Material Safety Data Sheet
NEC	New Engineering Contract
NEMA	National Environmental Management Act
NWA	National Water Act (Act No. 36 of 1996), as amended
NQF	National Qualifications Framework
OHNP	Occupational Health Nursing Practitioner
OHS Act	Occupational Health and Safety Act No. 83 of 1993
OHS	Occupational Health and Safety
ORHVS	Operating Regulations for High Voltage Systems
PPE	Personal Protective Equipment
PTO	Planned Task Observations
SACPCMP	South African Council for the Project & Construction Management Professions

Abbreviation	Explanation
SACNASP	South African Council for Natural Scientific Professions
SANS	South African National Standards
SAQA	South African Qualifications Authority.
SAQCC	South African Qualification and Certification Committee
SHE	Safety, health, and environment
TETA	Transport Education Training Authority
TBA	To be advised
WUL	Water Use License

6. Roles and Responsibilities

6.1 Commitment to OH&S

Visible and felt Leadership commitment is essential in providing a healthy and safe work environment, Leadership from all stakeholders. Leadership must provide strategic direction and demonstrate commitment in terms of SHE issues both on strategic level and operational level. This must be done by being proactively involved in the day-to-day operations; in particular SHE aspects of any project / contract. Employees also are expected to demonstrate their commitment. Legislation and the Eskom requirements require that each employee must take reasonable care of themselves and their fellow workers.

6.2 Eskom Project 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/she 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

Papi Thokoa

6.3 Eskom Construction Health and Safety Agent:

Where a Construction Work permit is required as contemplated in terms of Construction Regulations 3(1), the Client must without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to act as his or her representative., and where such an appointment is made the duties that are imposed by the Construction Regulations 2014 upon a client, apply as far as reasonably practicable to the agent so appointed.

Patricia S. Malaza

6.4 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.

Tertius Botha

6.5 Eskom site project Manager:

He is responsible for the overall management of the project on-site.

Natha Mulaudzi

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

Patricia S. Malaza (SHE Manager)

6.7 Eskom Environmental Manager/Advisor/ Officer:

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).

The responsibility of the Environmental Manager/ Advisor/Officer is to provide assurance, advice, assist and support to the Eskom Site/Project Manager in the management of the environmental issues on the project which includes ensuring compliance to the Environmental Authorisation (EA) and the Environmental Management Plan (EMP), Water Use License (WUL), Waste Management Licence (WML), Tree cutting permits, Atmospheric Emission License (EAL), Eskom standards and any environmental compliance obligation applicable to the Project.

Ndivhuwo Mavhungu (Environmental Officer)

6.8 Designers

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 consideration the health and safety specification submitted by the Client. The designer shall then submit to the Client the receipt of acknowledgement of the health and safety specification document. (This shall serve as proof that the designer has taken the H&S requirements into consideration during the design stage).

Designers shall ensure that designs are accompanied by a report as required in terms of Construction Regulations 6 (1) (c)

The designer shall take into account the hazards associated with the current constructability as well as 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.

The designer shall 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 and this will include inherent risks which the contractor will need to be aware of.

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 shall communicate changes on designs, including any new identified risks associated with the particular change/s to the Construction Health and Safety Agent, Project Manager, Environmental Manager/Snr Advisor/Officer and Environmental Control Officer (ECO).

Layout maps depicting coordinates, all the activities (site camps, laydown area, workshop areas, access road etc.) and sensitive areas (such as heritage sites, wetlands, rivers, protected fauna and flora etc.)

Final Designs and layout maps must be approved by relevant Authorities before the commencement of construction.

6.9 Principal Contractor's accountabilities for their Contractors

- 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.
- 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 Principal Contractor shall carry out audits on the contractor at least monthly to ensure that the Environmental authorisation, Water use license, waste management license, and other applicable permits conditions and Environmental Management Programme/ 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.
- 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's Construction Manager/Supervisor shall provide a list of names and contact telephone numbers of all his employees as well as the contractor employees on site. This list shall be updated as and when new contractors commence on site.
- The Principal Contractor's Construction Manager/Supervisor shall keep a record of all employees including the contractor employees, including date of induction, relevant skills and licenses, and be able to produce this list at the request of the relevant officials. These records shall be filed in the SHE File.
- 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:
  - 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.
- Employees are responsible for their own health and safety and that of their co-workers in their respective areas of work on the project. They must be made aware of their responsibilities during induction and awareness sessions some of which are:
  - Familiarising themselves with their workplaces and health and safety procedures.
  - Working in a manner that does not endanger them or cause harm to others.
  - Keeping their work area tidy.
  - Reporting all incidents/accidents and near misses.
  - Protecting fellow workers from injury.
  - Reporting unsafe acts and unsafe conditions.
  - Reporting any situation that may become dangerous.
  - Carrying out lawful orders and obeying health and safety rules.
  - Declaring to the employer if taking medication which may have intoxicating effects.
- 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.
- 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 Eskom Site/Project Manager and the Principal Contractor Supervisor immediately.

7. Management and Supervision of Construction Work

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

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

No work shall commence and / or continue without the presence of an appointed competent Construction Manager, Construction Health & Safety Manager & Officer, Construction Supervisor or Construction Supervisor Assistants 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 Construction Manager shall demonstrate competency in relation to work being performed and the ability to manage construction work which may include making all statutory appointments in terms of Health and Safety, refer to CR 8)(1).

The Principal Contractor and contractor are required to 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.

7.1 Construction Health and Safety Manager/s and Officer/s

The Principal Contractor and contractor shall appoint a full-time Construction Health and Safety officer in this project in accordance with the requirement of CR 8 (5) & (6).The Construction Health and Safety Officer(s) shall be registered with the SACPCMP. The Principal Contractor may appoint a full-time or part time Safety Manager based on the risk of the scope to be executed.

In cases where a Construction Health and Safety Manager is appointed, it would be desirable if he/she is also registered with SACPCMP on either of the following categories:

- Construction Health and Safety Officer (CHSO) or
- Construction Health and Safety Manager (CHSM)

7.2 Construction Professional Registration

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

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

Construction Health and Safety Officers/Professionals are required to register as professionals with the SACPCMP, refer to CR 8 (6)

Construction Managers are required to register as professionals with the SACPCMP. (Refer to section 18(1) & (2) of the Project and Construction Management Professions Act 48 of 2000)

8. Process for Monitoring

This document is valid for the duration of the works and will be amended, as and when necessary, as requirements are being amended and therefore it will be required for the Principal Contractor and contractor's plan to be amended accordingly.

Conformance to this document shall be via regular safety inspections and by Monthly Audits.

8.1 Related/Supporting Documents

Eskom OHS Act section 37 (2) agreement (to be completed by the Project Manager) (24077037682)

Acknowledgement Form for Eskom SHE Rules and other requirements (32-726)

Annexure A – Client non-negotiable OHS requirements

Annexure B-SHEQ Policy 32-727

9. Document Content

9.1 Note to Principal Contractor and its Contractors

The SHE specifications are Eskom's minimum requirements. The Contractor is expected to establish a SHE Plan which meets these requirements as well as all the applicable legislation. Eskom in no way assumes the Contractors legal responsibilities. The Contractor as a legal entity, therefore an employer in their own right is and remains accountable for the quality and the execution of the health and safety program for their employees and contractor employees. This document reflects minimum requirements and should not be construed as all encompassing.

The Contractor is expected to have a recognised OHS Management system that will incorporate these requirements as well as all the applicable legislation.

10. SHE Specification

10.1 Project and Scope of Work Details

Location: Tutuka power station is located between Standerton and Bethal, approximately 25 km from Standerton in Mpumalanga. The GPS Co-ordinates as per Google Maps: S26.77565, E29.35212

Project description/detailed scope of work:

The scope of works for the Tutuka Ash higher project can be summarised within the following infrastructure aspects:

The Contractor is referred to the NEC3 ECC C4 Site Information document. It is imperative to note that the site contains existing dams holding ash contaminated water, which cannot be discharged externally (without appropriate treatment) and must be managed entirely within the existing basins. The Employer's Designer has established a management philosophy to address the volume of contaminated water on site. This philosophy encompasses specific temporary works (such as seepage wells, coffer dams, etc) and a carefully prescribed sequencing of construction activities to ensure environmental compliance and safety.

The Contractor is obliged to strictly comply to these stipulated water management requirements; however, the Contractor is welcome to introduce improvements or alternative solutions that can improve the handling of contaminated water. All water management options shall be fully accounted for in the pricing submitted for the contract. Proposed improvements will be evaluated and approved by the Employer's Designer to ensure compliance with overall project objectives and regulatory standards. It is the Contractor's responsibility to implement effective measures for the containment and management of contaminated water throughout the project duration and to ensure that all activities are carried out in a manner that minimizes environmental impact while ensuring site safety.

Program details:

- Submission of final SHE Plan must be before site establishment. Final SHE plan needs to be submitted five (5) working days after contract award for works permit application.
- Anticipated date for the commencement of work on site: September 2025 (as per current estimates).
- Project completion date or project duration: - February 2028 (as per current estimates).
- Site Details: Tutuka Power Station- Ash Dams

11. Client and Principal Contractor: Details, Accountabilities and Responsibilities:

11.1 The Eskom Project Organogram:

Will be made available to the successful contractor once on site.

11.2 Principal Contractor OHS Accountabilities and Responsibilities Organogram including the OHS Functional Department Resource Plan

The Principal Contractor shall provide an organisational organogram related to this project, listing all the levels of responsibility from the Chief Executive down to the supervisors responsible for the project. The diagram must list the names of appointees and their roles and responsibilities.

Provide a proposed OHS resource plan. For each position, stipulate the position titles, qualifications and competencies.

For the duration of the contract, the Principal Contractor shall ensure that competent persons are appointed in writing in terms of the requirements of the OHS Act 85 of 1993 and its Regulations; and or other statutory requirements and that all their appointees are made aware of their accountabilities and responsibilities and have been suitably trained in terms of their appointment, and advice and assist these appointees in the execution of their duties. All organograms shall be updated timeously when appointments are changed and filed in the project SHE file.

Where there are multiple contractors on site appointed by the Principal Contractor, the Principal Contractor shall coordinate cooperation between contactors to ensure health and safety control.

11.3 Appointment of a Principal Contractor

The Principal Contractor will be appointed by Eskom Project 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.

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

11.4 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 plan that is required to be submitted to Eskom. Adequate training and instruction must be given to the appointees and the principal contractor must ensure that all appointed contractors understand their roles and responsibilities.

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

11.5 Appointment and Competencies

The Principal Contractor shall in writing appoint as per the OHS Act requirements and shall ensure that all his appointees are made aware of their accountabilities and responsibilities in terms of their appointment and that they advise and assist these appointees in the execution of their duties.

The Principal Contractor shall ensure that competent persons are appointed in writing in accordance with the applicable appointments and shall demonstrate competency in relation to work being performed.

Copies of all the appointments shall be kept in the SHE File

The Principal Contractor shall provide and keep up to date an outline organogram and a list of names and contact telephone numbers of all appointments as required from the table below.

Reference	Description
16(2)	Persons assigned functions to assist the Chief Executive Officer (if required)
17	Health and Safety Representative
19	Health and Safety Committee Member (if there are 2 or more H&S reps there will be a H&S committee)
GSR 3	First Aiders
GSR 5(1)	Person that pronounces & certifies a confined space safe for the duration of work being conducted (applicable for confined spaces)

DMR 17(2)	Goods Hoist Inspector
GAR 9(2)	Incident / Accident Investigator
DMR18(11)	Lifting Machinery Operator (Appointment or Permit)
DMR18(5)	Lifting Machinery Inspector
DMR18(10)(e)	Lifting Tackle Inspector
EMR 9	Portable Electrical Equipment Inspector
VUP 10	Portable Gas Container Inspector
VUP 13(1)(b)	Pressure Vessels Inspector
HCS 3(3)	Hazardous Chemical Substances Co-coordinator
Asbestos Regulation 21	Person registered as an Asbestos Contractor (Asbestos AIA) by the Department of Labour
CR 5(1)(k)	Appointment of the Contractor by the Employer
CR 7(1)(c)(v)	Subcontractors Appointment by the Contractor
CR 8 (1)	Construction Manager
CR 8(7)	Construction Supervisor appointed by the Contractor's OH&S Act Section 16(2) assignee
CR 8(8)	Assistant Construction Supervisor appointed by the Contractor's OH&S Act Section 16(2) assignee
CR 8(5)	Construction Health and Safety Officer
CR 9(1)	Person to Compile Risk Assessments
CR 10(1)(a)	Competent Person to compile Fall Protection Plan
CR 12(1)	Person to supervise temporary works
CR 13(1)	Person to supervise Excavation Work
CR 21	Competent Person in the use of Explosives & Development of the Method Statements
CR 17(1)	Competent Person as Suspended Platform Supervisor
CR 17(8)(b)	Competent Person to Conduct Performance Test of Suspended Platforms

CR 16(1)	Competent Person as Scaffolding Supervisor
CR 19(8)(a)	Material Hoist Inspector
CR 20(1)	Competent Person as Bulk Mixing Plant Supervisor
CR 21(2)(b)	Competent Person as Explosive Powered Tool Inspector
CR 21(2)(g)(i)	Appointed Person responsible for issuing & collection of Explosive Powered Tools cartridges & nails or studs
CR 23(1)(k)	Construction Vehicle and Mobile Plant Inspector
CR 24(e)	Competent Person for Temporary Electrical Installation Inspections
CR 28(a)	Competent Person for Stacking and Storage Supervisor
CR 29(h)	Competent Person as Fire Fighting Equipment Inspector
Eskom Requirement	Emergency Planning Co-coordinator
Eskom Requirement	Fire Official
CR 18(1)(a)	Rope Access Supervisor
CR 8(1)	Construction manager
Sans 12480-1&3	Crane coordinator – Tower crane operations /Appointed Person Mobile Crane operations
CR 8 (2)	Assistant Construction Manager

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.

Health & Safety Representative Required Competencies:

- General Health and Safety Training
- Health and Safety Representative Training
- Hazard Identification and Risk Assessment Training
- Incident Investigation and Root Cause Analysis Technique Training
- Working at Heights unit standard 229998

- Assess a site and prepare a Fall Protection Plan unit standard 229994
- Asbestos Training (Asbestos Regulation, 2001 section 5 Information and Training)
- Basic scaffolding erecting and dismantling training;
- Basic lifting and rigging training, with a minimum of 3 years exposure to construction lifting and rigging related operations;
- Environmental legislation training.
- Eskom PSR and ORHVS training as and when required by the contract scope of work, especially work inside switchgears.

Note: The appointment of Health and Safety Representative shall satisfy the minimum criteria as per the Eskom procedure 32 – 11: Health and Safety Representatives and Committee Systems.

Construction Supervisor & Assistant Construction Supervisor Required Competency:

- Three years applicable experience in construction management
- General Health and Safety course
- OH&S Act and Regulations or Mine Health and Safety Act and Regulations course, as applicable (latest version of the Act and Regulations)
- Incident Investigation and Root Cause Analysis Technique Training
- Hazard Identification and Risk Assessment Training
- Job Observations Training
- Legal Liability
- Attended an accredited supervisor's safety course
- Eskom PSR and ORHVS training as and when required by the contract scope of work, especially where work is to be done inside the switchgear.

Where the Works are carried out on areas governed by the Mine Health and Safety Act 29 of 1996 or other Law applicable to mining activities, the appropriate equivalent appointments and assignments shall be made as required.

Construction Health and Safety Manager/Officer required competency/requirements

The CV of such a Construction Safety Officer(s) shall be subjected to acceptance by the Construction Health and Safety Agent/Manager, before appointing such a person to the project.

The *Principal Contractor* shall, according to the project risk profile, employ the services of a Full-time Safety Manager during its term of contract. If the risk or if the Project Manager and or an Inspector of the D.O.L requires it, the Contractor shall appoint additional full-time Safety Practitioners, as

requested, to manage safety and health matters on site. The Contractor shall ensure that sufficient Safety Officers are employed by all sub-contractors it intends to employ.

Note 1: All Construction Health and Safety Manager/Practitioners appointed in terms of the CR, regulation 8(5), to the Tutuka Refurbishment and Construction Projects, must have the minimum criteria of exposure to civil work construction, as is stipulated by the SACPCMP Council.

Note 2: A competent person who has successfully applied to the SACPCMP Council for professional registration, and has received a confirmation letter of acceptance, after being assessed and found competent to proceed to the examinations, may be appointed to the Tutuka Refurbishment and Construction Projects on a temporary basis, pending the outcome of the examination and final registration as a Construction Health and Safety Manager/Practitioner. Should the candidate complete the examinations and fails, the Contractor must inform the Project Manager, and after consultation with the Project Manager and Construction Health and Safety Agent/Manager, ensure such a person is removed from the Tutuka Refurbishment and Construction Projects and replaced with a suitable competent person.

If the competent person is deferred by the SACPCMP Council to that of a Candidate Construction Health and Safety Manager/Practitioner, the Contractor shall place such a person under the direct supervision of a fully registered Construction Health and Safety Manager/Officer. A Candidate Construction Health and Safety Manager/Practitioner may not operate in the capacity of a Construction Safety Manager/Practitioner on his or her own and may not be appointed in terms of CR regulation 8(5).

Competencies/Training

- National Diploma in Safety Management or Environmental;
- A recognised safety certification (minimum: of 2 weeks training) (e.g., SAMTRAC / Modern SHEQ Management course);
- Registration and accreditation from a recognised Health and safety professional body (SACPCMP);
- OHS Act and Regulations (latest version of the Act and regulations);
- COID Act (latest version of the Act);
- Incident Investigation and Root Cause Analysis;
- Hazard Identification and Risk Assessment Training;

- Health, Safety and Environmental Auditing;
- Environmental recognised course;
- Basic scaffolding erecting and dismantling training;
- Basic lifting and rigging training, with a minimum of 3 years exposure to construction lifting and rigging related operations;
- Environmental legislation training.
- Eskom PSR and ORHVS training as and when required by the contract scope of work, especially work inside switchgears.

Environmental Manager / Officer

The following SHE competencies are required as a minimum before appointing an Environmental Manager/Practitioner at the Tutuka Refurbishment and Construction Projects:

- National Diploma, B-Tech or BSC in Environmental Management;
- ISO 14001 Development, Implementation and Auditing Certificate;
- All applicable Environmental Legislation:
- Environmental Incident Investigation; and
- Nature conservation training:
    - Animal Studies;
    - Conservation Ecology;
    - Conservation;
    - Conservation Administration;
    - Conservation Resource Management;
    - Ethical Information and Communication Technologies for Development Solutions;
    - Fundamentals of Conservation;
    - Plant Studies;
    - Soil Science;
    - Ecological Management Plan;
    - Environmental Awareness and Responsibility;
- Environmental Authorization Training;
- Water Use License Training;
- Occupational Health and Safety Act 85 of 1993; and
- Construction Regulations, GNR 84 of February 2014

Note 1: An Environmental Officer must have at least 3 years of experience working on a construction project, managing environmental compliance, inclusive of exposure to wetlands management in that period.

Note 2: The *Contractor* must ensure that those persons who have the relevant qualifications achieved via the Recognition of Prior Learning (RPL) standard; must have such qualifications graded by the SAQA body in order to determine the overall level of qualifications and competency in terms of environmental management. Overall RPL Grading must meet the minimum level of grading equivalent to that of a National Degree or Diploma. All additional training in terms of environmental legislation will be mandatory, over and above the SAQA grading.

Note 3: Before appointing Environmental Managers and Officers to the Tutuka Refurbishment and Construction Projects, the *Contractor* shall submit the CV and verified copies of such qualifications to the *Project Manager* for verification and acceptance by the client appointed Construction Health and Safety Manager/SHE Manager and the GCD Environmental Manager/Officer.

12. Statutory Health and Safety Committee Meetings

Occupational Health and Safety Act, sections 17, 18, 19, and 20.

The Contractor and its sub-contractors shall implement a statutory Health & Safety Committee, as per the OHS Act, section 19. The Contractor shall comply with the requirements as stipulated in the Eskom latest revision of the procedure for Health & Safety Representative Committee and Systems 39-11. Copies of this procedure will be provided to the Contractor on request.

Matters that are discussed include, but are not limited to the following:

- Life Saving Rules;
- SHE Culture;
- Accident/safety incidents;
- Accident investigations (including near misses) and close-out of recommendations;
- Audit and inspection findings and close-out;
- Hazardous materials/substances;
- Work procedures;
- Protective clothing/equipment;
- Housekeeping;
- Work permits;

- Non-conformances;
- Emergency preparedness;
- Traffic control;
- Medicals;
- Training;
- Forthcoming high-hazard activities;
- General SHE issues;
- Matters arising from contractor's SHE meetings; and
- Action close-out status from SHE meetings.

Attendance registers for all Statutory Health and Safety forums shall be kept in the SHE file, and made available on request by the Project Manager or any auditor approved by the Project Manager.

Furthermore, the Contractor shall maintain a tracking matrix for all actions forthcoming from such meetings, and action close-out forms shall be kept in the SHE file, with supporting evidence of closure, and be made available on request by the Project Manager or any auditor approved by the Project Manager.

12.1 Toolbox Talks

All contractors shall have a briefing session prior to the commencement of the day's work, again directly after lunch time, as well as before and after shift work during outages with all relevant personnel associated with the work task in attendance. The job, relevant procedures, associated hazards, safety measures, i.e., the task risk assessments shall be discussed. Each employee who attends the briefing shall sign the back of that pre-job brief form. Toolbox talks shall be included in the pre-job brief meetings. The toolbox topics will be based on SHE issues pertaining to the construction site. The topic contents shall be in writing and defined by the Contractor.

Chairman: **Contractor's Supervisor**
Frequency: Daily, when job requirements have changed, an employee is assigned a new task and or when required by the Project Manager and or Construction Health and Safety Manager.
Required Attendees: All contractor's employees.

12.2 Weekly SHE Meeting

The Contractor shall host a weekly site SHE meeting to discuss SHE related matters. A set agenda for these meetings will be agreed upon with the Project Manager. A typical agenda would contain, but not be limited to, the previous week's labour statistics, outline of the scheduled work on site, permits issued, new plant on site, planned training interventions and daily safety action item list for the forthcoming week, review of recorded incidents and co-ordination of any other safety matters.

Attendance registers for all weekly SHE meetings shall be kept in the SHE file, and made available on request by the Project Manager or any auditor approved by the Project Manager.
Furthermore, the Contractor shall ensure that all actions forthcoming from such a meeting is documented, tracked and when closed-out, supporting evidence of closure is to be kept in the SHE file with the minutes, and be made available on request by the Project Manager or any auditor approved by the Project Manager.

The Project Manager and Construction Health and Safety Agent reserve the right to attend such meetings, and it is expected of the Contractor to extend an invitation to the Project Manager and Construction Health and Safety Agent.

Chairman: Contractor Site Manager
Frequency: Weekly and or when required by the Project Manager and or Construction Health and Agent/SHE Manager.
Required Attendees: Management, SHE Department and Supervisors

Note: The Contractor SHE Department shall attend the BI- weekly SHE meeting arranged by the Client SHE Forum Chairperson, which shall be attended by the client Construction Health and Safety Agent/SHE Manager and SHE Officers, Contractor Safety Officers, Supervisors and Environmental Officer, and where requested by the Construction Health and Safety Agent, the Project Manager and Contractor must attend.

12.3 Monthly Contractors SHE Meetings

The Construction Health and Safety Manager/SHE Manager shall host monthly contractor SHE meetings, which will be attended by the Project Manager and the Contractor (Project and Site Management teams and SHE Departments). The Project and contractor SHE performance for the previous month will be presented to the client Project Management and Construction Health and Safety Agent. This meeting is mandatory and will show commitment by leadership towards supporting and enforcing compliance.

Attendance registers for all monthly SHE meetings shall be kept in the SHE file, and made available on request by the Project Manager or any auditor approved by the Project Manager.
Furthermore, the Contractor shall maintain a tracking register for all actions forthcoming from such meetings, and action close-out forms shall be kept in the SHE file, with supporting evidence of closure, and be made available on request by the Project Manager or any auditor approved by the Project Manager.

Chairman: Construction Health and Safety Agent/SHE Manager
Frequency: Monthly
Required Attendees: Client Project Management, Client SHE Department, Contractor Site Project Manager and Management and Contractor SHE Department.

Note: The Contractor shall host a monthly SHE related meeting for all contractor employees under his or her charge. The meeting shall be documented and actions arising from the meeting shall be closed-out within an agreed upon timeframe. Such minutes and actions shall be submitted within 3 days of the meeting to the Project Manager and Construction Health and Safety Agent / SHE Manager for acceptance and awareness.

12.4 Safety Awareness Themes and Talk Topics

The Contractor shall on a monthly basis roll out safety awareness themes on the site. These themes may be in the form of posters and or talks on specific safety topics identified as pertinent to the site and safety of every employee. This must form part of the Contractor's SHE Plan.

The Contractor shall ensure that the Eskom Talk Topics for Safety, Health and Environment are discussed with all contractor employees and the attendance registers, together with the Toolbox Talk, is submitted to the Eskom Project Manager for acceptance.

The Client will send monthly SHE Themes to the Contractor for discussion with their workers. Proof of communication shall be retained by the Contractor and be made available upon request by the Client

12.5 General Walk-downs

The Site Management from the Contractor shall lead the site walk downs with the Eskom Project Manager, on a weekly basis, to demonstrate their commitment towards occupational health and safety matters. These site visits will be used to identify both strengths and areas for improvement regarding SHE issues. Site walk downs will be documented and relevant report submitted to the Eskom Project Manager, within 24hrs, inclusive of an action plane to close out all deviations noted during such a walk-down.

Project staff and site management of the Project Manager, including all levels of supervision, will be required to do Visual Field Leadership inspection (VFL'S and Behavioural Safety Observations). The Contractor shall ensure participation and co-operation from all employees during such interventions.

12.6 Safety Stand-downs

There is an urgent need in the business to swiftly address the escalating number of safety and environmental incidents and to bring employee wellness to the fore.

The target audience for these interventions will be employees and contractors. These engagements will focus on, amongst others, the pro-active reviews of SHEQ plans and the implementation thereof, audit findings and associated action plans, peer reviews, etc.
Furthermore, there is a need to mobilize employees and contractors around the site specific SHEQ focus areas, thus building a culture of safe work practices in line with Eskom's Zero Harm drive underpinned by the Lifesaving Rules. Discuss Gx Coal Business and SHE Culture points; and Eskom Life Saving rules.

Four (quarterly) planned work stands down interventions per project/department each year in a collaborative manner focusing on the following outcomes:

- Recognition for good practice and attaining improved and sustained performance;
- Pro-active planned reviews of site specific SHE risk assessments and operational plans;
- Raise awareness with regards to site specific risks, trends and opportunities;
- Promote improved SHE performance;

- Leadership empowered and committed to engaging employees on safety and environmental management;
- Informed, empowered employees who take ownership of their personal safety and caring for that of others.
- Concentrate on weak links in the SHEQ chain supervision, complacency and training;
- Creation of a ZERO TOLERANCE culture towards SHE contraventions and adherence to the Life Saving Rules;
- Build a SHE culture within the construction environment;
- To get Senior Management from the contractor companies to:
- Review and update their construction processes, the co-ordination, administration and the management of resources on the construction site;
- Discuss the implementation of their SHE plans and ensure the maintenance thereof;
- Review SHE audit reports;
- Ensure that SHE management system is maintained by the Contractor and its sub-contractors;
- Ensure co-operation between all contractors in order to ensure compliance with the Construction Regulations;
- Focus on site specific hazards, risks and opportunities in order to continuously improve SHE performance.
- Build a culture of safe work practices, pertaining to Safety, Health and Environmental excellence throughout the division, thus keeping our people, plant and the environment we operate in, safe from harm and injury;
- Energize, inspire and motivate employees to incorporate SHE behaviours into daily personal activities; and

Note 1: The Project Manager shall not be liable for any cost and time lost as results of such safety stoppage/stand down.

Note 2: The Project Manager, in consultation with the Client appointed Construction Health and Safety Agent, may request additional stand-downs due to an increase in incidents or any other SHE related matter. These stand-downs will be at expense of the Contractor.

13. SHE/Q Policy

The Principal Contractor and the contractor companies shall each have a SHE/Q Policy authorised by their Chief Executive (OHS Act Section 16(1) appointee) that clearly states overall SHE/Q objectives and commitment to improving Safety, Health, Environment and Quality performance and must be displayed and shared with all stakeholders.

Eskom has a SHEQ Policy that clearly states the policy principles by which Eskom operates and the commitment to SHEQ excellence and is authorised by the Eskom Group Chief Executive. (See Annexure C).

Eskom SHEQ Policy will be handed to the Principal Contractor when the onboarding process commence. The contractor shall communicate the policy with his/her employees and submit evidence to the Client Agent/Manager/Practitioner for filling.

14. OHS Requirements

The Client expects the Principal Contractor and Contractor to engage in safety culture initiatives in line with the Eskom SHEQ Policy and value, Zero Harm.

It is required that the Principal Contractor and Contactor comply with all the applicable legislation, specifications and standards in accordance with the scope of the project.

This Project will abide by all applicable legislative requirements and be aligned to Eskom OHS Policies, standards, and procedures.

A section 37(2) agreement must be signed between the Client and the Principal Contractor at the time of awarding the contract. A signed copy of this agreement is submitted to the Client prior to commencement of any activities on site.

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

The Principal Contractor, at all times, considers itself to be the “Employer” for the purposes of the OHS Act, and shall not consider itself under the supervision or management of the Client regarding compliance with the SHE Requirements.

The Principal Contractor shall furthermore not consider itself to be a subordinate or under the supervision of the Client in respect of these matters. The Principal Contractor is at all times responsible for the supervision of its employees and contractors and assumes full responsibility and accountability for ensuring they are competent, aware of the SHE Requirements and execute the works in accordance with the SHE Requirements and legislative requirements.

The Principal Contractor shall ensure that all statutory appointments and appointments required by the Management system are in place, and that all appointees fully understand their responsibilities and are trained and competent to execute their duties. The Principal Contractor supervises the execution of their duties by all such appointees.

The Principal Contractor shall prepare a suitable and sufficient 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 shall complete a suitable and sufficient project, scope of work and site specific SHE plan in accordance with the SHE Specification Requirements and submit to the Client before taking possessions of the works .The Principal Contractor's SHE Plan will be assessed for compliance so as to confirm compliance to the requirements in the Client SHE specification. Once compliance is confirmed, only then will the contractors SHE plan be approved by the Client for implementation.

The Principal Contractor on appointing any other contractor shall ensure that the Contractor provides and demonstrate to the Principal Contractor with a suitable, sufficiently documented and coherent site specific health and safety plan based on the client's documented health and safety specifications. The Sub-Contractor's SHE Plan will be assessed for compliance so as to confirm compliance to the requirements in the Client SHE specification. Once compliance is confirmed, only then will the contractors SHE plan be approved by the Principal Contractor for implementation.

The Principal Contractor and Contractor involved in Construction Work shall comply with the requirement stipulated in the Construction Regulations 2014 of the OHS Act 85 of 1993, including all the other applicable statutory requirements for their contracted scope of work.

The Principal Contractor and Contractor shall ensure that all their employees, contractors and agents undergo the relevant Eskom induction and company's induction prior to starting the works.

The Client, or any person appointed by the Client, may, at any stage during the execution of this contract refuse any Employee, Subcontractor, Contractor access to the premises if such person has been found to commit an unsafe act or any unsafe working practice or is found not to be qualified or authorised in terms of the SHE Requirements;

Safety File

The Contractor provides a Health and safety File for their own works, as well as for all Subcontractors.

15. Compliance and Non-Conformances

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

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

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

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

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

15.1 Legal and Other Requirements

It is required that all Contractors on site comply with all the applicable legislation, specifications and standards in accordance with the scope of the project.

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.

15.2 Suspension of Activities under the Contract

Any person may stop an unsafe act or unsafe condition or activity that poses or may pose a threat to the health and safety of an individual, threat to plant or machinery or create a risk of degradation of the environment.

The Project Manager shall not be liable for any time and cost as a result of such work stoppage.

Note 1: A client representative who deems it necessary to stop an activity as a result of unsafe acts and/or conditions, must do so immediately and in the shortest possible timeframe, notify the Eskom Project Manager and appointed Client Supervisor.

15.3 Temporary SHE Work Stoppages

Tutuka Refurbishment and Constructions Projects shall host quarterly SHE work stoppages. These stoppages will be to re-affirm the Gx Coal & Clean Technology SHE Culture and provide feedback to all employees on SHE related performance achievements. The Contractor shall prepare a SHE related performance presentation, which the Contractor (In terms of the NEC 3 Contract) will present to all contractors working at the project. The Contractor shall ensure that all contractor employees are in attendance and actively participate.

At the discretion of the Eskom Senior Management, Tutuka Refurbishment and Construction Projects Site Manager, Project Manager and the appointed Construction Health and Safety Agent, ad hoc work stoppages may be implemented so as to further re-affirm the Eskom and Gx Coal and Clean Technology Projects SHE Culture as a result of regular incidents and poor safety and environmental performance and conditions prevailing at the project.

15.4 Suspension or Termination of Contract due to Poor SHE Performance

The Project Manager, as defined in the contract between the Project Manager and the Contractor, will be the only authorised person to communicate the suspension or termination of the contract, as a result of continued poor SHE related performance.

"Eskom takes a ZERO TOLERANCE stance to violation of Eskom Lifesaving Rules and will apply appropriate sanctions."

16. Enforcement of SHE Requirements and Non-compliance

The Principal Contractor shall submit their procedure on how they would deal with enforcement and non-compliance to SHE requirements.

17. 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:

a) being protected from exploitative labour practices;

b) not to be required or permitted to perform work or provide services that

- are inappropriate for a person of that child's age; or
- 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 efforts must be exercised to avoid it.

18. Notification of Construction Work

The Principal Contractor shall notify the relevant Provincial Director of the Department of 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 DOL shall be forwarded to the project manager on the same day as sent to the DOL. A copy of the letter and their approval must be kept in the SHE file. When the DOL provide a letter of approval, a copy of the approval must be sent to the Eskom project manager and a copy filed in the SHE file.

19. OHS Act

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

20. Cost allocation for SHE Compliance

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

Note: the costing for OHS must be detailed that is itemised based on the overall contracted scope of the project (i.e.) Medical surveillance (Medicals), provision of PPE, safety equipment purchases, resources etc.

Environmental Bill of quantities must be submitted related to EMS, EMP, EA and other legal requirements.

21. Training

The Principal Contractor and 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 scope of the training includes but is not limited to the type of work being performed and the relevant procedures. In addition to the requirements, the Principal Contractor and contractor employees would require the appropriate qualifications, certificates and tickets, and be under competent supervision. Records of all training and qualifications of all contractor employees must be kept. The Contractor shall maintain comprehensive records of all employees under his control (including all employees of the contractor) attending induction training. Acknowledgement of receiving and understanding the induction must be signed by all persons receiving the induction respectively.

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.

The contractor must develop a training matrix for all their employees.

When there is an amendment to the Acts and/or to the regulations, a SHE plan must be reviewed, updated accordingly and changes must be communicated to all relevant employees.

22. Site Induction

22.1 General construction site induction carried out by the Principal Contractor

The Principal Contractor shall ensure that all his employees and contractor employees undergo their company induction with regard to the approved SHE plan, general hazards prevalent on the construction site, construction risk assessment, rules and regulations, and other related aspects.

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

Prior to induction all employees must undergo a pre-employment medical examination and found fit for duty. A prerequisite for one to be inducted is a proof of attendance of company Induction, medical fitness certificate issued by an Occupational Health/medical Practitioner, and completed Construction Regulation's Annexure 3.

Furthermore, the Contractor shall ensure that induction sessions for *Contractors* are timeously booked with the client SHE Department, at least 48hrs in advance.

All contractors are expected to undergo annual re-induction with the Client. If a Contractor had undergone an induction before December holidays, regardless if they have been inducted a week before the holidays, that employee shall undergo re-induction when coming back on site. In a case where a Contractor employee is off site for 12 or more weeks, they shall undergo induction training upon their return to site.

The Contractor may request an emergency induction, on consultation with the Construction Health and Safety Agent/Manager. This induction will be at the sole discretion of the Construction Health and Safety Agent/Manager and may not invoke a habit-forming process with regards to general inductions for new employees to site.

Project SHE induction awareness training times are as follows:

- Mondays to Fridays – 09:00am
- Saturday / Sundays – Arrangements to be made in advance.

The *Principal contractor* must submit a mobilization plan to the Eskom *Project Manager* on a weekly basis.

Proof of inductions and acknowledgement of Life Saving Rules shall be kept in the SHE file and be made available to the *Project Manager* or any auditor approved by the *Project Manager* on request.

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

Note: No employee, consultant, visitor or vendor shall be allowed onto site, or perform any form of work, without undergoing an induction and awareness training.

22.2 Visitors to Site

A contractor shall ensure that all visitors to a construction site undergo health and safety induction in accordance with Construction Regulations 7 (6) and 7 (7).

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

23. Access and Security Control

Access and Security control shall be done according to the Eskom Access Control Policies.

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 (exclude Eskom official firearms/ ammunition and firearms/ ammunition issued to the South African Security Forces)
- Liquor/ Alcohol
- Dangerous weapons
- Drugs
- Any other items that may be declared prohibited

The Principal Contractor and contractor shall provide suitable safety signs, including traffic routes signage's (traffic & pedestrian arrangement) & warning notices/ signs to indicate restrictions or prohibited items, where authorisation is to be obtained.

The Principal Contractor shall have system/ process to manage vehicle access to site.

The *Principal Contractor* ensures that security is considered in the contract to secure plant machinery on site (day, night and on weekends).

The *Contractor* shall ensure that no unauthorised access is gained to site laydown or construction areas by the public or farm animals. The *Contractor* is to submit a plan to the *Project Manager*, indicating how he or she intends to control access to site camps, laydown and constructions areas.

The Contractor shall ensure that no inadvertent access is gained to any of the materials, chemical substances, fuel, equipment or machinery.

24. 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, 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 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.

The traffic management plan shall be approved by the *Project Manager* before work commence.

The *Principal Contractor* and his sub-*Contractors* shall adhere to the site traffic plan to ensure the safe movement of all construction related mobile plant – *Safe use of vehicles on Construction Sites, 240-75885882*.

25. Contractor's Site Facilities

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

- **Temporary Facility Layout Plan**

The *Contractor* shall submit a detailed site layout plan for acceptance by the *Project Manager* after consultation with the Construction Health and Safety Agent/SHE Manager, client Environmental Manager, the Tutuka Power Station Environmental Manager and the Independent Environmental Control Officer.

Note: No site establishment shall take place prior to approval of the plan for temporary site camps and laydown/stockpile areas, by the Department of Environmental Affairs (DEA) and the Department of Water and Sanitation (DWS) has been received in writing.

- **Sheltered dining rooms and eating facilities**

The *Contractor* shall provide and maintain adequate dining room facilities appropriate to the workforce size and work duration, that conform with the requirements of the OHS Act, Construction Regulations, Facilities Regulations and the Hazardous Chemical Substances Regulations.

Furthermore, the *Contractor* shall provide, to the acceptance of the *Project Manager*, sheltered eating areas for use by the contractor employees. The maintenance and cleaning of eating areas shall be the responsibility of the *Contractor*. All costs involved are deemed to be included in the tender price.

Eating areas shall provide adequate shelter and shall be ventilated and lighted. Tables and backed seating shall be provided. Suitable receptacles with lids for depositing waste shall be provided at convenient points inside and outside the eating areas.

The dining room facility, and all electrical appliances utilized for the purpose of boiling water and or heating food, shall be kept in a state of good repair and hygienically clean.
Note: Sleeping under parked vehicles, half-built walls or trees during meal breaks is strictly **prohibited** on site.

- **Change rooms & Shower facilities**

Where required, the *Contractor* shall provide and maintain adequate and suitable changing and washing facilities appropriate to the workforce size and work duration, that conform with the requirements of all applicable legislation. The *Contractor* shall ensure that separate changing facilities are provided for both genders.

- **Ablution facilities**

The Contractor shall provide and maintain adequate and suitable sanitized portable ablution facilities appropriate to the workforce size and work duration that conforms to the requirements of all applicable legislation. Separate ablution facilities shall be provided for both genders. These portable ablution facilities will be kept tidy and hygienic during the duration of the Project.

Where the Contractor makes use of existing facilities provided by the Tutuka PS, the Contractor shall ensure that his or her employees support the aim of keeping these facilities clean and hygienic.

- **Site Sheds, Offices and Amenities**

The Contractor is responsible for suitable offices, parking area, eating facilities etc. for their employees.
The Contractor will ensure that reverse parking is executed on Tutuka site.

- **Lay down and Storage**

The *Contractor* shall include in its temporary facilities plan, a detailed plan for all lay-down areas required for storage of materials, chemicals, equipment and machinery.

The *Contractor* shall provide and maintain adequate and suitable storage facilities appropriate to the scale of the project and work duration, that conform to the requirements of the OHS Act, Construction Regulations, Regulation 28, and as approved by the *Project Manager*.

- **Temporary Site Services**

No employee will be allowed to erect living accommodation on site.

The Principal Contractor must develop their site establishment procedure and this must be in line with the EMPr, environmental authorisations and other permits and licenses.

- **Existing Services**

The *Contractor* shall give prior notice in writing to the Eskom *Project Manager* of his intention to begin excavation work in any area. The Eskom *Project Manager* will then arrange to have the approximate location of all known buried cables and or other existing services indicated to the *Contractor* and, where practical, marked on the ground before excavation commences. All movement and removal of existing buried services will, if necessary, be carried out by the *Contractor*.

The *Contractor* shall immediately inform the Eskom *Project Manager* of any existing services uncovered during the work. Prior to any excavation work, a scan shall be done by the *Contractor* to determine the location of any hidden services underground. Where possible, air driven shovels are to be used for any excavation work. The *Contractor* may only make use of manual labour as a last resort.

Note: The *Contractor* shall be responsible to obtain all permits to work for excavations to be dug, powerline crossings, hot work to be conducted, from the Tutuka Power Station, prior to commencing with excavation work. The *Principal Contractor* will give a copy of all applications to the Eskom *Project Manager.*

- **Installation and Maintenance of Temporary Construction Electrical Supply, Lighting, and Equipment**

The *Contractor* shall ensure that all temporary electrical supply, lights and equipment are installed and used in accordance with the OHS Act, Electrical Installation Regulations, relevant South African National Standards and by-laws, Regulations of the OEM and supplier concerned, including the PSR and ORHVS regulations. Attention shall be given to the positioning of such equipment in order to minimize pollution caused by noise and fumes.

Every portable generator shall be issued with a drip tray and refueling of these generators shall be done in such a way to prevent any spillage. Each Portable generator shall be fitted with an earth and/or earth spike.

All electrical installation shall have a C.O.C issued by a competent and appointed person.

- **Site De-establishment**

The *Contractor* shall submit to the Eskom *Project Manager, a* Site de-establishment Plan that complies with the Tutuka Power Station EMPr, at least 30 days prior to any de-establishment of contractors under its control.

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, is not available.

The Principal Contractor must develop their site establishment procedure and this must be in line with the EMP, environmental authorisations and other permits and licenses.

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.

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

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

The *Contractor* shall comply with the requirements of Eskom's Life-saving Rules and the Tutuka Refurbishment and Construction as well as Tutuka Power Station specific rules.

The *Project Manager* will take a stance of zero tolerance on transgression of these rules. Non-compliance to any one of the lifesaving rules will be considered serious misconduct and will lead to disciplinary action and dismissal. Eskom takes these rules very serious and any person violating these rules will be removed from site with immediate effect. Such a person will not be working on any Eskom site again.

These Life-saving Rules are non-negotiable health and safety rules that must not be broken under any circumstances. Where additional Life-saving Rules have been implemented as part of a site-specific requirement, the Contractor will comply accordingly.

Eskom Life Saving Rules

Five Life Saving rules have been developed that will apply to all Eskom Employees, agents, consultants, contractors and visitors. Failure to adhere to these rules will be considered a serious 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.

The rules are:

RULE	DESCRIPTION OF RULE
Rule 1	**OPEN, ISOLATE, TEST, EARTH, BOND, AND/OR INSULATE BEFORE TOUCH** (That is plant, any plant operating above 1000 V)
Rule 2	**HOOK UP AT HEIGHTS** 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.
Rule 3	**BUCKLE UP** No person may drive any vehicle on Eskom business and/or on Eskom premises: Unless the driver and all passengers are wearing seat belts.
Rule 4	**BE SOBER** No person is allowed to be under the influence of intoxicating liquor or drugs while on duty

Rule 5	**PERMIT TO WORK** Where an authorisation limitation exists, no person shall work without the required permit to work.

Eskom will take a stance of zero tolerance on these rules

Any non-compliance to any health and safety requirement in this SHE specification is subject to discipline/removal of person from the project site.

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 work site returns home safely to his or her family.

No person shall damage, alter, remove, render ineffective, or interfere with anything that has been provided for the protection of the site, or for the health and safety of persons.

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

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

Entering or leaving the Site will only take place at official access control points and may only be done via the official designated walkways. The limit is 0.0000% BAC on this site.

All employees shall adhere to the SHE and other site-specific rules.

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

- **Smoking**

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

The contractor to ensure there are adequate smoking facilities for the workforce. It should consist of a covered area, with bench seating, and provided with:

- Fire Extinguishers.
- Sand Buckets.
- Health warning signs as required by the Tobacco Products Act, as amended.

- **Cellular Phones**

Do not use Cellular phones in areas where cell phone usage is prohibited.

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

The use of cell phones while driving/walking is strictly prohibited.

- **Fire Extinguishers**

All fire extinguishers 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 shall be entered in the register and signed by competent person.
- No open or unattended fires are allowed within the construction site.

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

- **Vehicles and Traffic Rules**

Ensure that all drivers and passengers wear seatbelts, where fitted, 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 contractor employees, when performing work for Eskom, are transported at the back of bakkies / vans and trucks.

- **Substance and Drug Abuse Management**

The Principal Contractor shall provide a Substance Abuse management policy which is in line with the Eskom Procedure (Eskom Substance Abuse Procedure 32-37)

28. Hazard Identification and Risk Assessment

It is a legal requirement in terms of Section 8 (2)(d) of the OHS Act for an employer to 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 Principal Contractor shall prepare, provide, maintain and update (at defined intervals) a Risk Assessment in line with Construction Regulations 9 (1) (a-e), in alignment to Eskom 32-520 procedure. The Contractors are expected to have different types of risk assessments for their scope of work.

Emerging risks and hazards must be managed during construction work. This means that if there are significant changes to a process or activity, or any new process, then these should also be subjected to risk assessment. All risks must be rated.

All risks must be rated.

Risk assessments shall be conducted by an appointed competent risk assessor. Risk assessment shall be developed by cross-functional team and outcome shall be shared with employees

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

The baseline risk assessment shall be developed by the cross-functional team.

The following people must be involved when compiling the risk assessment:

- Project Manager
- Construction Manager
- Supervisors
- Specialists
- SHE officers
- SHE Reps
- Employees with experience of the task.
- Union representative if available.

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

29. High Risk Activities

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

- Ensure that permanent and adequate on site supervision is available for the entire 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 ;and
- Provide any temporary protective shielding required for protecting nearby operations from the construction activities, at their own cost.
- When crossing roads , railway tracks and other power lines during operations, the contractor shall ensure that rugby poles are properly erected at all road crossings and that the public is warned, and flagmen placed at strategic positions to warn traffic/motorists. Principal Contractor shall ensure that whenever mobile cranes/ lifting machinery are operated onsite, the booms are retracted and safe clearances from overhead power lines, communication lines or other overhead obstructions are observed and maintained as per Electrical Machinery Regulations 19 & 21, Eskom Procedure "Operating Regulations for High Voltage Systems (ORHVS)-32-846" Section 5.03.6.3 (Work in close proximity to live conductors / apparatus). Supervisors shall be trained in the Eskom ORHVS (see above).
- 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.
- What are your company's critical success factors, plans, and requirements in managing high risk construction activities such as (if applicable):

- Civil works
- Lifting and rigging
- Crane Coordinator
- Blasting
- Hot work
- Work at height
- Electrical safety

Please don't limit response to the above list.

30. Pre-Task Risk Assessment (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. 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.

31. Method Statement, Safe Work Procedures and Practices

The Principal Contractor shall compile project / site specific method statements and safe work procedures for all the high risk activities as identified in the risk assessment and scope of work. These shall be approved by the contractor and reviewed for acceptance by the 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.

Commencement of any work activity does not take place unless a method statement and risk assessment has been produced and submitted to the Client (and permission has been received), in advance of any proposed specific activity starting. They must be site and task specific, clear and signed off.

The supervisor / team leader shall ensure that all employees are trained on all applicable safe work procedures**.** Records of training/ awareness shall be kept on site.

32. Planned Task Observations (PTO)

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.
- 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.

Please refer to Annexure E (Safe Work Procedure and Job Observation Template); it may be used as a minimum guideline.

33. General Walk-downs (Visible Felt Leadership)

The Construction Manager from the Principal Contractor shall lead the site walk downs with the Construction Supervisors and the management representatives from the Principal Contractor at agreed intervals to demonstrate their commitment towards SHE matters. These site walk downs will be used to identify both strengths and areas for improvement regarding SHE issues. Site Walk downs will be documented, inclusive of an action plan to close out all deviations noted during such a walk-down.

Describe how and what measures are taken by Senior Leadership to actively drive SHE with employees and contractors.

Consider the following Criteria:

- Visibility on sites where operations take place.
- Interventions that leadership drive specifically on SHE matters.
- What monitoring mechanisms are in place to verify the above?

34. Health and Safety Behaviour Observations and Inspections

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 supervisors.

The Principal Contractor is expected to describe how their company would implement a behavioural safety programme.

35. Work at Elevated Positions and Roof Work

- 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 a rescue plan) shall be compiled, implemented and reviewed and every possible and practicable means shall be adopted to provide such persons with effective training and safeguards.
- 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:
  - 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 programme (according to the relevant SAQA NQF unit standards) of all employees working at height and records thereof
  - Legal appointments
  - The process of evaluation of the employees' medical fitness for each employee working at height.
  - 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 rescue plan detailing the necessary procedure, personnel, and suitable equipment required 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.
- 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 Eskom employees performing inspections or work in the area where the Contractor has identified a fall risk will be covered under the Contractor's fall protection plan.
- 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).

  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.

35.1 Working at height training

- The Principal Contractor shall ensure that all their employees working at height must be competent in working at height including the rescue team that will be utilised during emergencies. Training provided for working at heights should be in accordance with the relevant unit standards.
- As a minimum, individuals who will be performing work at heights and are not responsible for rescues must undergo three days FAS training (Unit Standard 229998). And the rescuers must further undergo two days rescue training in accordance with unit standard 229995. The principal contractor or contractor must identify further trainings (e.g. Advanced rescue US229999) applicable to the employees work area.

- Once these employees have successfully completed classroom theoretical and practical training provided by the training provider, each employee must undergo on the job training on every task which is going to take place when working at height. These people need to be declared competent and fit to perform each task.
  - The employee must work at least 40 hours with a mentor who has the knowledge and the experience (at least 1 year experience) to perform that specific task.
  - The employee must keep a logbook of his work for the 40 hours with a mentor. The logbook will be signed of each day of mentorship, by his mentor.
  - After completion of the 40 hours and the mentor is satisfied with the employee's progress, the Supervisor must conduct a planned task observation (PTO) on the employee. The Supervisor must indicate on the PTO that the employee is now fit to work on his own.
  - The logbook and the planned task observation must be kept on the employee's file for the duration of the project, to prove his competency.
- A contractor shall ensure that the designated person for the development of a fall protection plan undergoes appropriate training based on unit standard 229994.

35.2 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 before use 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.
- 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 place 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.
- 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.

35.3 Ladders (Portable)

- All ladders used on the site shall comply with the OHS Act and Regulations.
- All ladders shall conform to the relevant SANS standards or other recognised international standards.
- Damaged ladders shall be marked as "DAMAGED" and removed from the project site.
- Prior to work being performed, an adequate risk assessment shall be conducted, and work shall be conducted in accordance with General Safety Regulation 6 and 13A and Construction Regulation 10 of the OHS Act
- All employees using ladders must be trained on the safe use of a ladder.

36. Occupational Health and Hygiene

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

36.1 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.
- 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.
- 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
- Heat Stress Management Program

Principal Contractors and contractors shall report to the Department of Labour and Department of Minerals Resources on the occupational hygiene milestones (e.g. crystalline silica). Evidence of reporting to the department of labour and department of mineral resources and copies of such reports shall be made available to SHE Manager / officers.

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

The Principal Contractor and contractors shall describe in detail how they would implement an Occupational Hygiene programme and provide an outline of the programme as well.

36.2 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.

36.3 HIV/Aids/TB & COVID 19 Awareness Programme

An HIV/Aids awareness programme will be implemented and maintained by the Project Manager. This will include voluntary counselling and testing (VCT) of individuals prior to initial commencement of work at the site and HIV/AIDS awareness training and access to ongoing support for affected individuals. The Contractor shall ensure that its employees and its sub-contractor's employees are aware of this programme. Records of awareness programmes and training are to be provided during audits and inspections as and when required by the Project Manager.

The Contractor shall incorporate COVID-19 Management on their SHE Plan and ensure compliance to such plan.

The Contractor shall also implement an HIV/TB/COVID 19 awareness programme to raise employee awareness regarding the disease.

36.4 Protection against Dehydration and Heat Exhaustion

The Contractor shall take into consideration and mitigate dehydration and exhaustion of employees. Furthermore, the Contractor shall implement a procedure to address fatigue, and must be submitted to the Eskom *Project Manager* for acceptance.

36.5 Protections from Wet and Cold Conditions

The Contractor shall take into consideration and mitigate inclement and extreme hot and or cold weather conditions.

36.6 Medical Surveillance Programme

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. 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.***

A contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational Health practitioner in the form of Annexure 3.

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.

The frequency to renew the medical fitness certificate shall be determined by the risk profile and or as per the recommendation of the medical practitioner.

On completion of the project an exit medical examination shall be conducted, unless otherwise advised by the Occupational Health Practitioner.

All employees shall be issued with the required medical records to prove medical status at the time of exiting the construction project.

The Principal Contractor shall provide a documented process for managing those employees who are issued with a conditional certificate of fitness.

In instances where sick leave is taken for a period of one week or more, the contractor shall institute an arrangement that employees need to sign a declaration indicating that they did not suffer any illness or injuries which occurred in the period of absence, which may affect their ability to work on site.

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

36.7 Emergency Care

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

Emergency numbers will also be part of the SHE induction.

Eskom has established a contract with ER24 for all employees and its contractor employees for emergency medical assistance incurred whilst on duty anywhere in South Africa. The telephone number is **010 205 3400,** alternatively one can call **084 124.**

Contractors shall have one first aid box for the first 5 persons and thereafter one for every 50 or team of workers on site or part thereof.

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

Minimum contents of a first aid box: (Refer to GSR 3 Annexure of the OHS Act)

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.

The Principal Contractor and contractor shall ensure that alternative arrangements shall be made for possible incidents occurring after normal working hours.

Where services are not available from the medical centre or where there is no medical centre, the Principal Contractor shall investigate alternative arrangements to ensure access to adequate medical assistance in the event of emergencies.

The Principal Contractor shall provide a detailed plan as to how access to or provision of medical facilities, services and assistance is rendered on the project at all times. This shall form part of the Principal Contractor Health and Safety Plan.

The Principal Contractor shall establish and test the Emergency medical response component of the emergency preparedness plan.

A list of emergency numbers must be posted at phones and in every office. The *Principal Contractor* shall ensure that his employees and contractor employees are familiar with the emergency numbers and also are provided with stickers, with the emergency numbers printed on, to place outside their hardhats. Tutuka Power Station emergency number is **017 749 5400/017 749 5725.**
Emergency numbers will also be part of the SHE induction.

36.7.1 First Aid Station

The Contractor shall provide a temporary first aid facility as close to the construction area as possible. The first aid station shall provide the initial medical treatment required to stabilize an injured employee, and shall be equipped with the general first aid equipment and in addition the Contractor shall be responsible for the following:

- Comply with the established communication network within the project/site or facility (including outside sources, if necessary);
- Establishing personnel accountability systems (including visitors);
- Stopping work and controlling the affected areas;
- Defining key personnel responsibilities and duties;
- Access to appropriate emergency resources and medical personnel as dictated by the emergency;
- Providing first aid training; and
- Briefing and reporting requirements.
- The Contractor shall ensure that adequate measures and emergency plans shall be stipulated in writing and posted at various locations on the site to adequately inform all personnel and visitors.

The Contractor shall ensure that a competent First Aider, minimum (Level 2) is appointed and present on each shift of work.
Alternative arrangements are made for possible incidents occurring after normal working hours;

When services are not readily available from the Tutuka PS medical centre, the Contractor shall make alternative arrangements for any medical assistance. Proof of this must be made available in the Contractor and its contractor's SHE plans;

That in instances where his employees and contractor's employees require medical treatment off Site, the Contractor's Safety Manager/Practitioner and the Project Manager's Safety Agent/Manager/Practitioner and Supervisor will accompany such employee;
If a Contractor or contractor goes to a hospital without informing the Project Manager disciplinary steps will be taken against the Contractor Project Manager.

That it and its sub-contractors appoint trained and competent First Aiders as per the OH&S Act and regulations; and

36.7.2 Emergency Contact Details

The following emergency numbers will be utilised during project execution at Tutuka Power Station:

Tutuka Emergency number- 017 749 5400/017 749 5725
Tutuka Medical Station- 017 749 9119
Tutuka Fire Station- 017 749 5954
Tutuka Security- 017 749 5872
Tutuka Safety Department- 017 749 9327/017 779 8553

If a person needs to be transported to a hospital, the Principal Contractor will inform the Project Manager. The Supervisor and SHE Practitioner / Manager will accompany them to the Hospital.

No Contractor is allowed to go to the Hospital on his/her own without the Eskom *Project Manager*'s knowledge.

36.8 Employee Assistance Programs (EAP)

Where Principal Contractors and contractors do not have EAP service providers, then Eskom's EAP service provider is available to provide assistance. All costs shall be borne by the Principal Contractor. Details are:

ICAS – Tel. No.: 0800 212 052

Email: Eskom@icas.co.za

Dial *134*905# into your phone to create a request for them to call you back.

36.9 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.

36.10 Compensation of Occupational Injuries and Diseases Act (COIDA)

The Principal Contractor shall submit proof of registration and letter of good standing with the compensation fund or with a licensed compensation insurer for his company and each of his contractors'; based on South African legislative requirements. This must remain valid for the duration of the contract. The Letter of Good Standing shall reflect the name of the Principal Contractor and/or Contractor Company.

36.11 Workplace protective measures to be taken during the COVID-19 outbreak

The Principal Contractor and Contactors shall ensure that measures required by the applicable COVID-19 directives, guidelines and work instructions are strictly complied with.

37. Emergency Preparedness and Response Plan

The Principal Contractor shall, in consultation with the Client regarding the Client's site specific emergency preparedness plan, develop and implement an emergency preparedness and response plan. The Principal Contractor shall ensure that all applicable stakeholders are trained on the approved plan.

Periodic emergency drills shall be undertaken by Eskom; however, the Principal Contractor shall initiate his own emergency drills with permission from the Eskom Project Manager. This must be recorded and provided on request.

When doing a task that requires standby emergency response, the contractor shall provide for this and Eskom Emergency Department will supplement.

37.1 Offices

The Emergency Preparedness plans must accommodate how to react to emergency situations such as, fires, work injuries, bomb threats, building evacuation, political unrest, the contacting of the various emergency services etc.

37.2 Site plans

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

38. Forums for SHE Governance and Communication

Effective governance and communication structures shall be established for the project scope where project SHE matters shall be discussed (SHE BI-Weekly meetings). Attendance registers and minutes shall be kept for all the health and safety meetings. The terms of reference shall be established for each governance structure on the project.

Eskom Project team shall define the project SHE governance and communication structures.

The Principal Contractor/s and their Contractor/s shall provide a communication plan outlining the discussions and decisions to their staff, the mediums they will employ and how they will measure the effectiveness of their SHE communication.

Specific Health and Safety Meeting

Objective: this is the forum where all SHE issues affecting a particular area in a project are discussed.

Chairman: Eskom Area Project Manager/ Eskom SHE Practitioner

Frequency: Bi-Weekly

Required Attendees:

- **Principal Contractor/s and their sub-contractor/s**
  - Safety practitioners working in that area
  - Supervisors working in that area
  - Environmental practitioner/ environmental control officer

- **Eskom**
  - Contract Supervisors
  - Safety practitioner
  - Contracts manager (when necessary)
  - Environmental practitioner/ environmental control officer

Every meeting conducted on site shall include SHE as a standing agenda point and minutes of these meetings shall be available on site at all times.

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

NOTE: SHE Bi-weekly meetings may be replaced by daily progress meetings during Outages as SHE issues are tracked daily on that platform.

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

39. Demolition work

The *Contractor* shall ensure that it complies with the requirements for demolition work, as stipulated in the Construction regulations, regulation 14. The *Co*ntractor shall submit for acceptance, a comprehensive and detailed method statement indicating the process for the demolition work, before commencing with such an activity.

Furthermore, the *Contactor* shall ensure that all equipment utilized for the demolition works, is operated, maintained and stored as per the OEM requirements. Only operators that are trained and appointed may operate specialized equipment for such an activity.

40. Asbestos Work (where asbestos work is part of scope)

- The Principal Contractor shall notify the relevant Provincial Director of the Department of Labour in writing of the intention to carry out asbestos work as defined in the Asbestos Regulation 3 of the OHS Act No. 85 of 1993 and Regulations;
- An asbestos contractor registered with the Department of Labour shall carry out the asbestos work;
- A detailed plan of work shall be submitted for approval to an approved Asbestos Inspection Authority.at least 30 days prior to commencement of such work;
- The Principal Contractor shall provide copies of approved standardised procedures for the removal of asbestos to the Provincial Director of the Department of Labour at least 14 days prior to commencement of work;
- Air monitoring shall be done during the removal, and the report must be sent to Eskom SHEQ Department for record keeping;
- A clearance monitoring shall be conducted post removal of the Asbestos material to declare the area asbestos free;
- The removed asbestos material shall be disposed of at an asbestos approved disposal site and a disposal certificate shall be submitted to Eskom SHEQ Department.

41. Construction Vehicles and Mobile Plant

All construction vehicles and equipment shall meet the legislative requirements pertaining to the OHS Act Construction Regulations 23, the National Road Traffic Act, the Mine Health and Safety Act, National Environmental Act and Eskom Vehicle Safety Specification Procedure 240-62946386.

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

- A Principal Contractor/ contractor shall ensure that all construction vehicles and mobile plant 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 and mobile plant.

- 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 and mobile plants. The driver's license shall be kept by the person so authorised and shall produce such card on request.
- All construction vehicle operators, flagmen, banksmen, signalmen, or pointsmen are to wear high visibility reflector vests at identified high-risk sites and construction projects. All flagmen, banksmen, signalmen, or pointsmen at identified high-risk sites and construction projects are to be positioned with warning flashing lights and warning signs in such a way that they are visible to the operators at all times (during the day and night).
- All employees moving between construction vehicles must wear high visibility vests. (Refer to Eskom Procedure 240-44175132)
- 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.
- Heavy construction vehicle parking sites, driveways, or any site should be designed in such a way that no reversing is required. Where reversing is unavoidable, it shall only be done with the presence of a flagman or a banksman.
- A vehicle and pedestrian management plan must be developed by the contractor to be in line with the client's plan.
- Ensure that all traffic signs are displayed.
- Reverse beepers shall be fitted on all construction vehicles.
- All drivers of construction vehicles and mobile plant shall have medical certificates of fitness to operate those construction vehicle and mobile plant, issued by an occupational health practitioner in the form of Annexure 3 of the Construction Regulations.
- *Each Project site will have system/ process to manage vehicle access to site. This process/system must be defined here.*
- The speed limit within the bounds of the construction site ranges between 20-60 km/h.
- No drivers or operator may text, talk on cell phones or two-way radios whilst driving.

  It is the responsibility of the driver to ensure that:

  - He/she and their passengers wear seat belts whilst the vehicle is in motion.
  - Comply with all traffic road rules, safety, direction and speed signs.
  - Ensure that vehicle loads are properly secured and loaded onto vehicles; and
  - Ensure that vehicles are not overloaded.

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

  - Ride on back of bakkies, cranes or other mobile plant equipment.
  - Leave vehicles unattended with the engine running.
  - All vehicles shall be locked chock blocks fitted and keys removed; and
  - Park vehicles in unauthorised zones/areas.
  - Leave vehicles locked, chock blocks fitted and vehicle keys removed.

- Eskom reserves the right to search any vehicle on the premises or when entering or leaving the premises.
- The Contractor shall be solely responsible for the safety and security of any of his vehicles (including private vehicles) on the premises.
- The Contractor shall attach identification markers on all of their vehicles that are permitted to enter the site.
- A current maintenance logbook is required for all cranes and large plant equipment, and shall be available for inspection at any time. The logbook shall be located in the cabin of the crane or plant equipment. Principal contractor is to ensure that visibility (e.g.: switching on of lights, reflectors, barricades equipped with lights, etc.) is enhanced on all Construction Vehicles and Mobile plants in order to identify the location of the vehicles or plant.
- The Contractor shall maintain his vehicles in roadworthy condition and a valid license. These vehicles shall be subject to inspection by the Client representative. Vehicles which are not roadworthy will not be allowed onto the site.
- In the event where the Principal Contractor and his contractor do not own the equipment, the Principal Contractor is still responsible for ensuring all conditions are complied with by all of his contractors or hire companies.
- Precautions shall be taken to lash all loads properly. Loads projecting from vehicles shall be securely loaded and in daytime a red flag and during darkness a red light or red reflective material shall be attached to the extreme end of such projecting material.
- Ensure that all construction vehicles and plant are maintained according to the manufacture's 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.
- Every mobile machine whose vision is impaired when reversing must have a siren/hooter, which beeps, when the machine is reversing. This includes trucks, cranes, loaders, etc.
- Display construction vehicle signs on all vehicles entering a construction site.

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 , (Act no 93 of 1996)

  (Reference: Regulation 176 substituted by regulation 48 of Government Notice R846 in Government Gazette 38142 dated 31 October 2014 – See Annexure F (Requirements for identification lamps)
- No construction vehicle is allowed to use the amber light whilst driving on a public road.
- 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

Interaction between Mobile Machinery and Pedestrians

The Contractor must take reasonably practicable measures to ensure that pedestrians are prevented from being injured as a result of being run-over by construction vehicles and or mobile machinery.

Such measures must include at least the following:

- Spotters;
- Separate walkways;
- Risk Assessment & Monitoring Plan;
- Access control;
- Transporting employees to site and to office;
- Traffic Management Plan & Site Layout Plan; and
- Awareness training.

Interaction between Mobile Machinery

The Contractor must take reasonably practicable measures to prevent collisions between two construction vehicles and mobile machines.

Such measures must include:

- Spotters;
- Designated one-directional (one way in, another way out) travelling route;
- Where not possible for one-directional travel, the road will be split in two with a dividing berm between the two lanes of a minimum height of between 1.0m;
- Effective and visible road signage in compliance with the Road Traffic Act 93 of 1996 and Road Note 13 (Road Construction works);
- Designated speed limits;
- Haul road width of no less than 15m wide;
- SABS approved safety belts to be used for all Construction vehicles and mobile machinery. If no safety belts were installed when purchasing the vehicles or machine, safety belts shall be retro-fitted according to SABS standards prior to be put into use.
- A Traffic Management risk assessment and risk mitigating plan;
- A detailed Traffic Management Plan;
- Awareness training for all operators.

In the event where no action is taken to prevent potential collisions, further means shall be provided to retard the mobile machinery to a safe speed where after the brakes of the mobile machinery are automatically applied. The prevent-potential-collision-system on the mobile machinery must "fail to safe" without human intervention.

Note: The Contractor shall ensure that no mobile machinery runs out of control.

Capsizing of Mobile Machinery

The Contractor must take reasonably practicable measures to ensure that persons are prevented from being injured as a result of overturning of any mobile machinery. Roll overprotection structures must be fitted on mobile machinery if required in terms of the Contractor risk assessment.

Persons Inadvertently Falling Out Of or Being Ejected From Mobile Machinery

The Contractor must take reasonably practicable measures to ensure that persons are prevented from being injured as a result of operators inadvertently falling out of or being ejected from any mobile machinery in motion.

Braking Systems

The Contractor must take reasonably practicable measures to ensure that persons are prevented from being injured as a result of brake failure. Such measures must include ensuring:

- That Mobile Machinery are operated with adequate and effective braking systems;
- All braking systems are adequately and routinely tested for intended functionality;
- All braking systems are regularly maintained; and
- That where a combined braking system is used, the design of the braking system is such that it complies with the requirements for the separate systems and that it fails to safe.

Note 1: The Contractor shall submit the methodology for testing of all Mobile Machinery brakes to the Project Manager for acceptance and monitoring of compliance.

For instance, brakes tested on the ramp for machines/vehicles with a clutch:

The park/emergency brakes of these vehicles (LDVs) are tested by selecting neutral, then engaging the brake - the machine/vehicle should not move.

To test the service brake, engage neutral, depress the service brake pedal and release the park/emergency brake - the machine/vehicle should not move.

Note 2: The Contractor shall ensure compliance to the latest revision of SAN Standard: 1589-1.

Note 3: The Mines Health Safety Act will apply where the contractor does not have any sufficient legislative measures in place to address this aspect of the mobile equipment.

Restricted Operator Visibility

The Contractor must take reasonably practicable measures to ensure that persons are prevented from being injured as a result of restricted operator visibility.

Fatigue While Operating a Mobile Machinery

The Contractor must take reasonably practicable measures to ensure that persons are prevented from being injured as a result of fatigue of operators. Such measures must include a fatigue management procedure for operators.

Diesel Refuelling Facilities

The Contractor must take reasonably practicable measures to ensure that diesel refuelling facilities are ergonomically designed, constructed and equipped with the following:

- Adequate through ventilation;
- Adequate fire suppression equipment;
- Effective provisions to cater for oil and diesel spillages; and
- Appropriate and adequate lighting.
- Surface diesel refuelling facilities are in accordance with:
    - SANS 10089-1: The Petroleum Industry Part 1: Storage and distribution of petroleum products in above-ground bulk installations;
    - SANS 10089-2 (2007): The Petroleum Industry Part 2: Electrical and other installations in the distribution and marketing sector; and
    - SANS 10131: Above-ground Storage Tanks for Petroleum Products
- Potential Impacts:
    - Release of contaminated water from contact with spilt chemicals;
    - Fuel source for on-site fires; and
    - Generation of contaminated wastes from used chemical containers.
- Controls:

- The storage of flammable and combustible liquids such as oils will comply with all relevant legislation and regulations;
- Any spills will be rendered harmless and arrangements made for appropriate collection and disposal including cleaning materials, absorbents and contaminated soils;
- Ensure that spill kits are available on site to clean up spills and leaks;
- Obtain any storage and disposal permits/approvals necessary and comply with the conditions attached to such permits and approvals;
- Ensure that any delivery drivers are appropriately supervised by an individual familiar with all procedures and restrictions on site. This is of particular importance during off and on-loading of materials;
- Ensure that only designated areas are used for the handling or storage of mining and construction materials;
- All materials must be stored at one location, to be approved by the ECO and EO;
- The Contractor must comply with all national, regional and local legislation with regard to the storage, transport, use and disposal of chemicals, harmful and hazardous substances and materials;
- The Contractor will furthermore be responsible for the training and education of all personnel on site who must be handling the material about its proper use, handling and disposal as well as spill response;
- The Contractor must be responsible for establishing an emergency procedure for dealing with spills;
- Storage of all hazardous materials is to be safe, tamper proof and under strict control;
- Fuels, solvent and other wastes must be stored in vessels equipped with secondary containment structures and must be moved from the mining and construction areas being disposed of in compliance with the relevant legislation and regulations;
- Hazardous products must otherwise be stored on adequately bunded surfaces in the designated hazardous material storage areas;
- All manufactured and/or imported materials must be stored in an appropriate manner in the construction camp. Depending of the type of material, storage areas will be roofed with impervious material (e.g. cement and chemicals);
- Fluids must not be stored together with solids; instead fuels, lubricants, transmission and hydraulic Separate material delivery and storage, and lay-down areas must be demarcated as needed;

- All material storage areas must be sited away from ecologically sensitive areas;
- Fluids must be stored in a designated area for fluids;
- Hazardous chemicals used during construction must be stored in secondary containers. The relevant Material Safety Data Sheets (MSDS) must be available on site;
- The Contractor must provide adequate and approved facilities for the storage and recycling of used oil and contaminated hydrocarbons. Such facilities must be designed and situated with the intention of preventing pollution of the surrounding area and environment;
- Identify and maintain a register of all activities that involve the handling of potentially hazardous substances, as well as devise and supervise the implementation of protocols for the handling of these substances. This will include all fuels, oils, lubricants and grease;
- Ensure that all hazardous substances are handled in accordance with the manufacturer's specifications and legal requirements; and
- Store all hazardous substances (including oils, fuels, chemicals, tar etc.) in a manner prescribed in the relevant Acts and Regulations.
- General Requirements:
- All legal compliance requirements with respect to fuel storage and dispensing must be met;
- All fuel storage tanks (temporary or permanent) and associated facilities must be designed and installed in accordance with the relevant oil industry standards, SANS codes and other relevant requirements;
- The Contractor must ensure that all liquid fuels and oils are stored in tanks with lids, which are kept firmly shut and under lock and key at all times;
- Areas for storage of fuels and other flammable materials must comply with standard fire safety regulations and will require the **approval of the Municipal Fire Prevention Officer** and the Tutuka PS Fire Department;
- Flammable fuel and gas must be well separated from all welding workshops, assembly plants and loading bays where ignition of gas by an accidental spark may cause an explosion or fire;
- The tank must be erected at a safe distance from buildings, boundaries, welding sites and workshops and any other combustible or flammable materials;
- Symbolic safety signs depicting "No Smoking", "No Naked Flames" and "Danger" are to be prominently displayed in and around the fuel storage area;
- The capacity of the tank must be clearly displayed and the product contained within the tank clearly identified;

- There must be adequate fire-fighting equipment at the fuel storage and dispensing area or areas
- The storage tank must be removed on completion of the construction phase of the project;
- All such tanks to be designed and constructed in accordance with a recognised code (SABS and International Standard);
- The rated capacity of tanks must provide sufficient capacity to permit expansion of the product contained therein by the rise in temperature during storage;
- Tanks must be situated in a bunded area, the volume of which must be at least 110% of the proposed volume of the tank;
- The floor of the bunded area must be smooth and impermeable, constructed of concrete or plastic sheeting with impermeable joints with a layer of sand over to prevent perishing. The floor of the bunded area will be sloped towards an oil trap or sump to enable any spilled fuel and/or fuel - soaked water to be removed;
- Any water that collects in the bund must not be allowed to stand and must be removed and the hydrocarbon digestion agent within must be replenished;
- Only empty and externally clean tanks may be stored on the bare ground. All empty and externally dirty tanks must be sealed and stored on an area where the ground has been protected;
- Any electrical or petrol driven pump must be equipped and positioned so as not to cause any danger of ignition of the product;
- If fuel is dispensed from 200 litre drums, the proper dispensing equipment must be used
- The drum must not be tipped in order to dispense fuel. The dispensing mechanism of the fuel storage tank must be stored in a waterproof container when not in use;
- All waste fuel and chemical impregnated rags must be stored in leak proof containers and disposed of at an approved hazardous waste site;
- The amounts of fuel and chemicals stored on site will be minimised; and
- Storage sites will be provided with bunds to contain any spilled liquids and materials Maintenance:
- Regular inspections will be carried out to detect leaks and spillages. All storage facilities will be maintained as regularly as is necessary to ensure they meet the original specification. Inspections will be carried out on a weekly and/or monthly basis by the ECO and EO; and
- All equipment that leak oil or fuel must be repaired immediately or removed from the construction site.

Corrective Actions:

Absorbent material must be available at tanks to absorb any spills.

Wheels, Tyres and Rims

The Contractor must take reasonably practicable measures to ensure that procedures are prepared and implemented to prevent persons from being injured as a result of the use, storage and handling of wheels, tyres and rims.

Access of Persons to and From Mobile Machinery

The Contractor must take reasonably practicable measures to ensure that mobile machinery are designed, constructed and maintained such that persons getting on and off, or working on them can do so safely.

Visibility of Mobile Machinery, Skid Mounted Machinery and Trailers to Persons

The Contractor must take reasonably practicable measures to ensure that TMM, skid mounted machinery and trailers are visible to persons in their vicinity.

Unauthorised Access to or Operation of Mobile Machinery

The Contractor must take reasonably practicable measures to ensure that unauthorised persons do not ride on or operate mobile machinery.

Isolation and Lock-Out of Mobile Machinery

The Contractor must take reasonably practicable measures to ensure that procedures are prepared and implemented for the safe isolation and lockout of mobile machinery.

Operating Procedures

The Contractor must take reasonably practicable measures to ensure that procedures are prepared and implemented for the safe operation of mobile machinery.

Maintenance Standards and Procedures for Mobile Machinery

The Contractor must take reasonably practicable measures to ensure that procedures and standards are prepared and implemented for maintaining mobile machinery in a safe operating condition.

Trailers

The Contractor must take reasonably practicable measures to ensure that:

- The design and construction of any trailer is in accordance with specifications approved by a competent person, which specifications must take into account the intended use of the trailer;
- The design and construction of trailer coupling and uncoupling mechanisms is such that coupling and uncoupling can be done safely and that no inadvertent uncoupling of the trailer can take place; and
- Procedures are prepared and implemented for the safe operation of trailers.

Towing and Recovery of Mobile Machinery

The Contractor must take reasonably practicable measures to ensure that procedures are prepared and implemented for the safe recovery and towing of mobile machinery. No chains or ropes may be utilized for the recovery or towing of Mobile Machinery.

Roadway Conditions

The Contractor must take reasonably practicable measures to ensure that the design, construction and maintenance of roadways are appropriate for the type and category of mobile machinery.

Selection, Training, Appointment and Licensing of Mobile Machinery Operators

The Contractor must take reasonably practicable measures to ensure that procedures are prepared and implemented for the selection, training, appointment and licensing of mobile machine operators, which procedures must include:

- Physical and psychological pre-selection criteria;
- Training programme for mobile machinery operators, covering:
- Theoretical training in a training Centre;
- Practical training; and
- On the job training.
- Assessment of the trainee, on successful completion of the training programme, by a competent person;
- Authorization of the competent operator, in writing by the responsible engineer, to operate mobile machinery;

- Authorization of the appointed operator, in writing by their supervisor, to operate mobile machinery. Such authorization must detail their duties, responsibilities, limitations and areas of operation.
- When an operator has not operated mobile machinery for a period of two years, such operator is re-assessed to be competent by a competent person prior to being issued with a new license.
- That every operator of mobile machinery is issued with a license containing at least the following:
    - Photograph to positively identify the operator;
    - The mobile machinery types which the operator may operate;
    - Date of issue and expiry date; and
    - The operator's company identification number.

Pre-Use Inspection Procedures for Mobile Machinery

The Contractor must take reasonably practicable measures to ensure that procedures are prepared and implemented for inspecting mobile machinery immediately prior to use, which procedures must include:

- That the operator of the mobile machinery physically inspects and ensures that the brakes, lights and any other defined safety features and devices are functioning as intended prior to setting such mobile machinery in motion; and
- Pre-use check lists that have to be completed by all operators of mobile machinery at the beginning of their shift. Such check lists must clearly identify all the components, features and functionalities to be inspected by the operator. For each component, feature or functionality, the check list must clearly indicate the pre-established criteria under which the mobile machinery may or may not be put in motion.

Reversing Over the Edge of a Stockpile or Embankment

The Contractor must take reasonably practicable measures to prevent any mobile machinery reversing over the edge of a stockpile or dump.

Inadvertent Movement of the Mobile Machinery

The Contractor must take reasonably practicable measures to prevent inadvertent movement of any mobile machinery whilst parked.

Mandatory Carrying of Licensing for Mobile Machinery

All operators of mobile machinery must have their originally issued license on their person whilst operating any mobile machinery.

42. Housekeeping

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

The Contractor will ensure that daily housekeeping is done.

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

Before stacking any material, the Principal Contractor, contractor or their employees must consult the Eskom Project/site Manager for allocation of a stacking 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.

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

Meal rooms shall be kept in a clean and tidy manner.

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

In cases where an inadequate standard of housekeeping has developed, compromising safety and cleanliness, anyone has the responsibility to bring it to the attention of the Eskom Project/Site Manager. The Eskom Project/Site Manager has the right to instruct the *Principal Contractor* and his contractor to cease work until the area has been tidied up and made safe. Neither additional costs nor extension of time to the Contract shall be allowed as a result of such a stoppage. Failure to comply will result in site cleaning by another cleaning contractor company at the cost of the *Principal Contractor*.

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

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

43. Signage

All symbolic safety signs that the Principal Contractor or his /her Contractors are to use/display shall comply with the requirements of SANS 1186.

The display of the following signage is mandatory:

- For Contractors with Site Establishment: The Contractor Company 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; Health and Safety Representative and Evacuation warden.
- The Contractors shall provide the signage where work is conducted and where unauthorised entry is prohibited and/or where alerting and cautioning passers-by to be aware of potential dangers
- The Contractors shall provide the signage in accordance with the scope and work area.
- The contractor shall provide signage in accordance with the EMPr requirements.

44. Hazardous Materials/Chemicals Management

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

Prior to any HCS 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 –
- Regulations for Hazardous Chemical Substances;
- Proposed arrangements for safe storage;
- Proposed methods for handling/usage;
- Proposed method of disposal;
- Hazard communication / training plan.

The information is to be provided prior to the expected delivery on site. The client representative shall approve the use of any hazardous substance after receiving the above information. No HCS are to be brought onto the site until the client representative approval is received.

45. Flammable and Combustible Liquids

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

Proposals to store fuel on site must have written approval from the Eskom Project Manager. The volumes of fuel allowed to be stored will depend on site conditions and Statutory Regulations.

Proper bund walls and signage indicating the volume it can take +/- 10%

46. Explosives

Explosives shall not be brought onto the site or be used without the express permission of the relevant Eskom Project/Site 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.

47. Compressed Gas Cylinders

Use and temporary storage of Compressed Gas Cylinders shall be managed in accordance with the Pressure Equipment Regulations of the OHS Act 85 of 1993 and SANS 10263-2:2008.

48. Personal Protective Equipment (PPE)

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

Principal Contractor's employees and his contractor employees at the construction site, including visitors, shall use the relevant internationally recognised authority 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.
- High visibility vests.
- Refer to General Safety Regulation 2 of the OHS Act.
- Refer to Eskom Personal Protective Equipment Specification (240_44175132, latest revision). This specification applies to all activities where PPE is required. It sets out Eskom's minimum PPE requirement to be met by contractors with the exclusion of the requirements stipulated with regard to the Eskom Corporate Identity.

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

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.

The Contractor shall ensure that his employees and visitors comply with the PPE requirements of the site.

48.1 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.

49. 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.
- 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 inspected by the Eskom SHE Practitioners prior to mobilizing it onto site.
- 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.
- All employees operating or using machines and tools shall:
  - Be competent.
  - Have a valid certificate.
  - Have proof of any form of task related training.

50. 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

- A register shall be used which indicate the name, number of the machine or tool and the number of guards.
- The register shall be kept in the safety file.

51. Hand Tools and Pneumatic Tools

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.

All hand tools should be inspected at least weekly as well as by users prior to use.

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

All files and similar tools must be fitted with handles.

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

Records

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

52. 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.

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 Authority.

53. Explosive Actuated Fastening Device

- Written permission to use these tools on site must be obtained by the Eskom Project/Site Manager.
- Only certified, competent, appointed personnel (CR. Reg. 21 (1) (b)) are 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.
- A protective guard around the muzzle shall be provided.
- Cartridges and explosive power tools to be stored separately and properly controlled by an appointed competent person.
- Refer to the requirements of the Construction Regulation 21 of the OHS Act.

Records

- Register for the issue and return of cartridges.

54. 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).
- 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.
- If it is the Principal Contractor's intention is 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 Project/Site Manager 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 if the Principal Contractor is satisfied with the operator's competency after looking at his portfolio, he/she should issue a temporary permit to the operator, and 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 a possession of a 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.
- All lifting tackle should be examined at intervals not exceeding 3 months by a competent lifting tackle inspector, who shall record and sign of such examination, such lifting tackle shall be stored or protected so as to prevent damage or deterioration when not in use.
- Refer to the requirements of the Driven Machinery Regulation 18 and Construction Regulation 19 and 22 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 draw 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.
- 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 loads of up to 5ton can be lifted by a person with basic rigging, depending on the complexity of the load. If it's a tandem lift or a complicated lift only a qualified rigger will do such lifts. Above 5Ton a qualified Rigger with a red seal will conduct all the lifts, and should the lift become critical a critical lift procedure will be completed accompanied by a rigging study and risk assessments.
- Hand signals 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 and this includes crawler cranes.
- 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

- Record books and test certificates of lifting machined and tackle should be kept on the safety file on site.
- A copy of the Site and Task specific risk assessment should be kept on the safety file
- 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.
- Register of all lifting machines and tackle on site (For inspection purposes).
- Training certificates and 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.

55. Fire Safety

The Principal Contractor/Contractor shall develop a fire safety procedure for the specific construction site prior to commencing work. The procedure must take into consideration the size of the site, type of work being done (e.g. cutting, welding, grinding, etc.) and amount of combustible materials. It must be developed in accordance with the hot work permit of the Eskom Plant Safety Regulations, Eskom Fire Risk Management requirements and all other applicable Regulations. All workers

entering and working in the construction site need to be trained in fire safety and any duties they are required to perform. Pre-existing fire systems in buildings shall be maintained during construction whenever possible. Any changes must be approved by the Client.

55.1 Fire Safety Plan

The Principal Contractor shall develop and implement an adequate Fire Safety plan to ensure the overall fire safety, fire prevention and fire protection measures, deemed suitable and necessary for the project.

The fire safety plan shall include:

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

55.2 Fire Alarm Systems Shut Downs

Contractors must inform the Client in writing 7 days prior to any part of a fire system being shut down.

55.3 Alternate Procedures

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

55.3.1 Occupied Buildings and/or portion

In the event that fire systems are removed from service a trained and qualified person will stand at the fire alarm panel and be in communication with the person(s) doing the work and capable of reinitiating the system in the event a fire alarm device is activated.

Or

Alternate warning device(s) will be used with procedures posted on all floors by elevators and entrances, stating fire alarm is out of service, the building/area affected, duration of shutdown, how to activate the alternate warning device(s), call Fire Department and call Security. Fire Panels must be tagged as to what has been removed from service and the Fire Department and Monitoring Station notified. Fire Watch personnel must be stationed in the building to patrol the affected area(s) and be in communication with each other.

In the event where smoke detectors and/or heat detectors or sprinkler systems are removed from service. Fire Panel must be tagged as to what has been removed from service.

Fire Watch personnel must be stationed in the affected area(s) and check the fire panel once per hour when the affected area is not occupied.

55.4 Cutting, Welding, and Hot Work

Prior to cutting or coring of concrete suspended slabs, cast in place or pre-cast walls, slab on grade the contractor must either X-ray the slab or if X-ray is not feasible provide other approved alternate method for determining live electrical concealed in slab or walls. Signage shall be posted to ensure no one enters the affected area during X-raying.

When welding or cutting work is performed, an adequate number of approved fire extinguishers shall be provided by the contractor. The contractor shall provide a thirty minute fire watch after the operations has ended to ensure that no fire starts.

- Hot work permit must be displayed.
- Employee must be competent.
- All oxy-acetylene welding equipment shall be fitted with a flash back arrestor
- All oxy-acetylene pipes must be clamped with the correct parallel hose clamps to separate it in an emergency.

55.5 Eskom Fire Safety Guidelines

55.5.1 Fire Systems

Fire systems must not be impaired in an occupied building unless by a trained and SAQCC registered person, capable of reinstating the system after it has been inspected, tested or maintained. Alternative procedures may be taken to ensure that all persons in the building can be informed promptly should a fire occur, and the Fire Department including Eskom Security is notified.

Installation of fire systems should be carried out by an ASIB (Automatic Sprinkler Inspection Bureau) certified person.

55.5.2 Fire Watch

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

55.5.3 Construction Sites

- Fire Safety Plan: Prior to the commencement of construction or building alterations, a fire safety plan and risk assessment shall be prepared for the construction site.
- Fire Warning: A suitable means of alerting site personnel to a fire shall be provided, and capable of being heard in all areas of the building.
- Portable Extinguishers: suitable extinguishers must be available on the construction site and in cases of hot work, be readily available at the location.
- Servicing of fire extinguishers should be carried out by a SAQCC certified person.
- Fire extinguishers should be maintained in accordance with the SANS codes.
- Combustible Liquid and Flammable Liquid Storage: storage of combustible and flammable liquid on the construction site is not permitted unless stored in approved flammable cabinets or outdoors away from the buildings.
- Fire Watch: fire watch (with tours at intervals of not more than one hour apart) shall be provided when a portion of a building is occupied while construction operations are taking place, with provision for the fire watch to sound the alarm, notify the Fire Department and Eskom Security, (except where the building and construction sites are provided with a fire alarm system or similar equipment acceptable to the Manager, Occupational Health and Safety)
- Smoking Restrictions: Smoking is not permitted indoors, at entrances to buildings or near air intake systems in accordance with Eskom Policy and legislation requirements.
- All sites shall be fitted with an alarm system.

56. Offices and Camp sites

- Contractors must develop a fire safety procedure for the office / camp site buildings, which must meet the requirements of the local authority fire department and the OHS Act Environmental regulations for workplaces, regulation 9.
- The fire plan must include emergency escape routes, supply of appropriate fire extinguishing equipment, appropriate signage, maintenance of the extinguishing equipment, location of the equipment, appointments of fire officials.
- The storage of flammable substances within offices / camp site is prohibited. Such storage shall be done in the appropriate flammable liquid storage facilities located away from buildings.
- A suitable fire warning system for alerting office personnel to a fire shall be provided, and capable of being heard in all areas of the building.
- Smoking is not permitted indoors, at entrances to buildings or near air intake systems in accordance with the Tobacco Control Act and Eskom Policy and legislation requirements.

57. Fire Protection System Shutdown Procedures

A risk assessment must be conducted prior to a fire system being impaired; the following persons must be informed of such impairment namely the project/site manager, the person responsible for fire safety on site as well as the local fire department.

In the event of any shutdown of fire protection equipment or parts thereof, the Manager of Maintenance and Operations and Electrical Foreman should be given 7 days' notice via email. Confirmation of the schedule should follow within 2 days of the original notice. Manager' of Security and Occupational Health and Safety should be given 3 days' notice via email for fire watch requests. The building occupants should be given 3 days' notice via email (all notes) of any shutdown of fire protection equipment or parts thereof.

An attempt to minimize the impact of inoperative equipment must be made (i.e. where portions of a fire alarm system, sprinklers, and standpipe system are taken out of service, the remaining portions will be maintained). Assistance and direction for specific situations should be sought from the Manager of Maintenance and Operations and Electrical Foreman, and should be in accordance with the accepted Eskom Fire Safety Guidelines and the Fire Safety Plan for the building.

In the event of bells and pull stations being removed from service in an occupied building, Facilities Management Staff (person in charge of the work) will be responsible to post procedures at affected pull stations, elevators and entrances. Assistance and direction for specific situations should be sought from the Manager of Occupational Health and Safety, and should be in accordance with the accepted Eskom Fire Safety Guidelines and the Fire Safety Plan for the building.

Procedures to be followed in the event of shutdown of any part of a fire protection system are as follows:

- Upon request, Electrical Staff shall verify in person that the work has been completed, contact the monitoring station, if necessary, restore the fire protection system, remove the information tag and inform the Electrical Foreman that the system has been restored;
- Electrical Foreman will notify Security Supervisor to begin fire watch;
- Security Staff or other reliable person will patrol the affected area(s) at least once per hour;
- Upon request, Electrical Staff will verify in person work has been completed, contact the monitoring station, if necessary, restore the fire protection system, remove the information tag and inform the Electrical Foreman system has been restored;
- Electrical Foreman will notify Security Supervisor to end fire watch.

58. 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" will be allowed.
- Balard container (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.
- 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.

59. 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;

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's 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.

60. Permit to Work

The Principal Contractor must adhere to the approved & Compulsory 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.

The Principal Contractor together with the appointed contactors on this project shall identify persons to be trained and authorised for the Electrical Permit to work systems. Eskom Regulations indicated below. After training the supervisors will be assessed for competence 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.
- Confined space 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.

61. 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.
- 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.
- 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.
- Radiation operators must submit proof of certification.
- Sources must be stored according to legal requirements.
- All contractors must be informed of X-ray activities.
- X-ray 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.

62. Excavations, Trenches and Floor Openings

- A contractor shall ensure that all excavation work is done in accordance with the requirements of Construction Regulation 13 of the OHS Act.
- Digging, excavation, or driving a peg, pile or spike into the ground operations by the Contractor may not commence without the written authorisation from the Client.
- Prior to commencing 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.
- 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. Danger tape may only be used as a pre-warning to make the solid barricading more visible and to prevent persons from coming close to the danger area.
- Barricading must be placed as close (500mm from the edge) as possible 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 material shall be placed within 3m of the excavation edges.
- 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.
- Client to review the said register on a pre-determined frequency not exceeding seven (7) days.
- 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
- No work shall commence in an excavation unless the excavation has been declared safe in writing by the appointed competent person.

63. Tunnelling

- Requirements of the Construction Regulation 15 of the OHS Act and Mine Health and Safety Act No.29 of 1996 and Regulations shall be adhered to where applicable.

64. Blasting

- 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.
- 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 number of flying debris.
- Inform all people in the area where the blasting is going to take place

65. Burrow Pits

The permitting of the materials sources required for the project will have to be undertaken in accordance with the Regulations pertaining to the Minerals and Petroleum Resources Development Act 28 of 2002 and Mine Health and Safety Act No 29 of 1996.

66. Working near Public Roads

- The Principal Contractor, his employees and contractors required to work on or nearby roadways shall wear high visibility vests, and be protected by red cones or flags during daylight and by red or amber flashing lamps at night.
- Work areas must be adequately barricaded so as to prevent unauthorised access.
- Road traffic warning signs shall be placed well ahead of the work area.
- The contractor shall ensure that operations are in compliance with the requirements of the National Road Traffic Act (Act no 93 of 1996).

67. 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 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.

- 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:

- The relevant activity must be stopped;
- The Eskom Site/Project 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 are 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 Site/Project Manager shall review the affected parts/sections of the SHE specification with the purpose of providing sufficient SHE information to the Principal Contractor.
- The Principal Contractor shall then revise the relevant sections in the SHE plan to accommodate the changes.
- The Eskom Site/project manager must ensure that the revised provisions in the SHE plan are adequate and must approve it before the work activity commences.
- Before the workforce is allowed back in the area, Principal Contractor and his subcontractors shall ensure:
- The area is re-inspected by Contractor Safety Practitioner and supervisor and note corrective actions taken;
- Declare the area safe for work by signing off on the “work stoppage” notice issued by the Eskom Site/Project Manager.
- Refer to requirements of Construction Regulation 4(q) of the OHS Act.

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

68. Environmental Management

This section covers the requirements for controlling the impact of construction activities on the environment. Environmental management is concerned not only with the results of the Contractor’s operations to carry out the Works but also, and most importantly, with the manner in which his operations are carried out. It is thus a requirement that the Contractor shall comply with the environmental requirements. The Contractor shall comply with all relevant laws, environmental legislation and regulations, conditions of environmental approvals, environmental management plans, and Employers Policies and Procedures.

Highlighted on this document are minimum requirements for compliance by contractors; however detailed requirements are as Environmental Management Plan (EMP), Environmental authorization, permits, licenses and specialist environmental permits and licenses based on final designs.

The Contractor is expected to appoint the following environmental resources for the project where applicable. The contractor requires ensuring 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 the required resources must be depended on the magnitude of the project or the project scope

Name of resource	Minimum Qualification	Experience
Environmental Manager	BSc Environment /B-Tech Environment/ Applicable 4-year degree or approved Alternative Professional Registration Body: SACNASP	7years' Experience in construction, Environmental Legislation and Auditing experience
Senior Environmental Advisor	4 Year degree or Diploma or 3 year degree or Diploma plus Honours in Natural sciences/environmental management or related subjects Professional Registration Body: SACNASP	4years' experience in Areas of specialisation (Land, Water, Air, Biodiversity, waste management and Construction management.)
Environmental Officer	Relevant B degree or National Diploma or B-Tech Professional Registration Body: SACNASP	3years' experience in Environmental Management

The curriculum vitae and certificates for these resources shall be provided

Recognized professional registration documentation must also be provided by the contractor.

Refer the EMP document for additional resource requirements

68.1 Environmental Management System (EMS)

The Contractor must provide a plan and demonstrate that they have developed, implemented and maintained an EMS.

68.2 Compliance Obligation

The Environmental Manager is to provide external audited proof that the project is meeting legal compliance, annually or based on legal changes or as agreed with the Client. Front end planning requires supplying in line with the future compliance checks for life of construction and commissioning. The scope of work of the contractor legal compliance audit must be site applicable and approved by the owner. The compliance obligation will require approved permits, licenses, certificate and authorisations. The contractor must submit permits and licenses related to the scope of work i.e., waste transportation, pest control certificates, and permitted landfill site in compliance with key licenses and permits etc. All external audit reports must be supplied to the owner.

68.3 Construction Layout Diagram or Map

The Contractor shall provide a detailed final site construction layout diagram or map, for approval by the Client, prior to commencement of construction. All available biodiversity information and conditions set out in the EA, EMPr and specialist reports shall be used in the finalisation of the layout. Existing infrastructure must be used as far as possible.

68.4 Site Establishment

The Contractor shall inform the Client of the intended actions and programme for site establishment and of the proposed location of the construction camp/s and provide him with a plan showing the fences, roads, construction area, yellow plant area, layout of the construction camp, ablution facilities including the positions of all buildings and infrastructure, stockpile and laydown areas, fuel storage for equipment areas, batching areas and other infrastructure. The Construction camp shall occupy as small an area as possible, and no site establishment shall be allowed within 100 m of any watercourse. The site layout shall be planned to facilitate ready access for deliveries, facilitate future works and to curtail any disturbance or security implications for neighbours.

68.5 No Go" Areas

Unless otherwise agreed to by the Client, the Contractor shall ensure that all activities are restricted to within the defined Working Area. The areas outside of the defined Working Area as well as any other areas identified by the Client or in this Specification shall be regarded as "no go" areas. Insofar as he has the authority, the Contractor shall ensure that no unauthorised entry, driving, stockpiling, dumping or storage of equipment, plant or materials shall be allowed within the "no go" areas.

Unless demarcated with other fencing, the boundary of the Working Area shall be demarcated using "no go" fencing.

The Client may also identify patches of natural vegetation or any other natural, sensitive or special features inside the Working Area as "no go" areas. These areas shall be demarcated using "no go" fencing.

Once construction within an area has been completed and the area has been rehabilitated, it shall be considered a "no go" area.

68.6 Site clearing

68.6.1 Identification and Management of Sensitive Vegetation

At the commencement of the Contract, the Client will identify to the Contractor the areas of natural vegetation that may be disturbed during the execution of the Works as well as the areas of natural vegetation or any rare or endangered flora that shall be preserved. The latter areas shall be designated as “no-go” areas and treated as per the requirements.

Prior to the onset of construction activities within any areas occupied by natural vegetation, a search and rescue operation shall be undertaken by the Client as per the EA and EMPr, to collect rare and endangered plants identified for transplanting or use in the revegetation of affected areas. Search and rescue operations will occur under the direction of a suitable qualified botanical specialist.

No clearing of trees or vegetation shall occur prior to the Contractor obtaining written permission from the Client, who shall designate in detail the exact areas to be cleared and the time at which it shall be done.

The Contractor shall ensure that the clearance of vegetation is strictly restricted to that required to facilitate the execution of the Works. Any natural vegetation, particularly trees, within or immediately adjacent to the Working Area, which do not require removal, shall be fully protected against damage. Vegetation clearance shall be restricted to the construction camp, approved access roads, approved stockpiling and laydown areas, batching plant sites and portions of the Working Area where vegetation interferes with construction activities.

Site clearance shall occur in a planned manner, and cleared areas shall be stabilised as soon as possible. All cleared vegetation shall either be mulched and mixed into the topsoil stockpiles or disposed of at an approved disposal site.

Should fauna be encountered during site clearance, activities shall cease until such fauna have been safely relocated.

68.7 Protection of watercourses, water bodies and wetlands

The Contractor shall ensure that all watercourses and water bodies, whether on the surface or below ground, are protected from contamination or degradation as a result of his activities. All watercourses and water bodies shall be protected from direct or indirect spills of pollutants such as solid waste, sewage, cement, oils, fuels, chemicals, aggregate tailings, wash and contaminated water or organic material resulting from the Contractor’s activities. In the event of a spill, prompt action shall be taken to clear the polluted or affected areas, and the Client shall be notified immediately.

The Contractor shall not work within the flood plain or 100 year flood line or any watercourses or waterbodies without the written approval of the Client as required for the execution of the work. The Contractor shall not permit his employees to make use of any natural watercourse or waterbody for the purposes of swimming, personal washing and the washing of machinery or clothes.

No excavation or construction shall be permitted within any wetland area.

The Contractor shall ensure that no construction equipment traverses any seasonal or permanent wetland. Where seasonally wet areas must be traversed, the Contractor shall obtain the prior approval of the Client and shall ensure that this only occurs during the dry season.

68.8 Spillage of Hazardous Chemical Substances

- Any spillages that occur shall be treated in accordance with the requirements indicated on the Material Safety Data Sheet (MSDS) and Eskom requirements (Spill assessment form)
- 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;
- Compile and implement the necessary Method Statements; and undertake environmental awareness training of all staff;

68.9 Herbicide and Pesticide usage

- Only herbicides registered as per the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 36 of 1947 may be used by the Contractor during the control of pests and weeds. The manufacturer's specification shall be followed.
- Only registered Pest Control Operators (PCO) as per the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 36 of 1947 may apply herbicides. The PCO registration certificate shall be available on site for verification purposes.
- An herbicide register must be kept detailing the chemical used, quantities on site and quantities used by the PCO. A copy shall be handed to the Eskom Project Manager / Environmental Advisor/ Manager on completion of the project / contract. The Contractor shall strictly adhered to the manufacturer's specifications regarding applications rates, storage and safety precautions.
- The leaching action, residual action, manner of application and the surrounding area (especially wetlands and crops) should be considered in the choice of chemical. This aspect must be carefully monitored when herbicides are applied as the slope of the ground together with the proximity of the stream to the substation site could cause leaching problems. 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.

68.10 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. No area is to be denuded of vegetation to create firebreaks, to prevent or make fires. 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.

68.11 Waste Management

All waste generated shall be re-used, recycled and where not practical possible 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.

Waste shall be managed according to Tutuka Power Station waste management work instruction 14RISK ENV-013.

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 bunded area with adequate containment for potential spills and leaks.

Waste may be collected by the relevant Municipality or alternatively taken by the Contractor 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, other legal requirements pertaining to waste and Eskom waste management standard.

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

68.11.1 Waste Management Plan

The contractor will be expected to comply with the Eskom waste management standard and develop a plan.

The contractor must submit a plan that is related to the scope of works and the plan must consist the following but not limited to;

- The amount of waste that will be generated (Register)
- Measures to prevent pollution or ecological degradation (Procedure/ Method statement)
- Targets for waste minimisation through waste reduction, re-use, recycling and recovery
- Measures or programmes to minimise the generation of waste and the final disposal of waste
- Measures or actions to be taken to prevent the use of specified substances (persistent organic pollutants, Polychlorinated Biphenyls (PCB), Ozone Depletion substances (ODS) and Asbestos
- Opportunities for the reduction of waste generation through changes to packaging, product design or production processes
- Mechanisms for informing the public of the impact of waste generating products or packaging on the environment
- The extent on any financial contribution to be made to support consumer based waste reduction programmes
- The period that is required to implement the waste management plan
- Methods for monitoring and reporting
- The waste class and rating in order to determinate correct disposal method for the waste and any other best practice that may be necessary to give effect to the requirements of National Environmental Management: Waste Act and regulations passed thereunder.
- Approved/licensed waste disposal sites to be used
- Audited Records of waste quantities disposed (Template)
- Compliance obligations

68.11.2 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

68.12 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.

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

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

68.13 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 Management Procedure 240-133087117, detailing how each incident will be managed and rectified. Proof thereof must be kept in an incident register.

Eskom believes that all incidents are preventable. The Contractor shall therefore identify all hazards and risks on site that may result in an incident and control the risk accordingly to avoid incidents from occurring.

In the event of a chemical spill, the source of the spillage shall be isolated, and the spillage contained. The area shall be cordoned off and secured. The Contractor shall maintain spill kits on site at all times and shall ensure that there is always an adequate supply of absorbent material available in the spill kits to absorb/ breakdown and, where possible, be designed to encapsulate minor spillage.

The Contractor shall maintain a list of Emergency Response Contacts in case deployment is required for uncontrollable incidents.

68.14 Water Management

No construction shall be allowed within the 1:100-year flood lines. Should any pollution of the watercourse occur, reporting must be done immediately in terms of Section 20 of the National Water Act, and it must be done via Eskom to DWS.

Subject to the prior approval of the Client, water for construction purposes may not be abstracted from watercourses/ water bodies or agricultural sources in the surrounding area. Abstraction of water from a watercourse or water body will require a permit from the Department of Water, Sanitation and Human Settlements, and abstraction from an agricultural source will require the owner's permission. The Contractor shall be responsible for obtaining the necessary authority and landowner approvals prior to undertaking such abstraction. The Contractor shall absolve the Client of any and all legal obligation and risk in this regard.

The quantity of all water abstracted from any watercourses/ water bodies or agricultural sources shall be measured by way of water meter or other devices approved by the Client. The total quantity of water abstracted shall be recorded on a daily basis and reported to the Client each week in writing.

Water usage on site shall be verified with 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. The contractor must have a water use programme that will measure water use and reduce consumption.

68.15 Borrow Materials

The contractor shall source borrow materials from licensed borrow areas as approved in terms of the Minerals and Petroleum Resources Development Act (No 28 of 2002), NEMA and have respective Water Use Licenses (if applicable).

Should the Contractor wish to utilise alternative material sources e.g., from a quarry or mine, the Client shall be provided with the relevant mining permit from the source (mine or quarry) as issued by the Department of Mineral Resources. The Contractor shall, at his own expense, institute the requisite negotiations with the Supplier. The Contractor shall absolve the Client of any and all legal obligation and risk in this regard.

Where the Contractor proposes the use of an alternative material source/s, they shall take due cognisance of the time required to obtain the required licences and permission from the relevant authorities and owners of the land for such use.

68.16 Energy Efficiency

The contractor must have energy efficiency programme that will measure energy consumption and reduce consumption.

68.17 Environmental Construction Method Statements

Applicable construction method statements specific to environmental management for the scope are to be provided before contract award unless deemed necessary for mandatory submission

68.18 Innovation

The contractor must suggest any innovation ideas to improve environmental performance such as technological improvements.

68.19 Climate change

The contractor must ensure that they will have programmes aimed at measuring Green House gases.

The monitoring and measurement will include but not limited to trending, developments of targets and plan for emission reduction.

68.20 Rehabilitation

The Contractor shall undertake rehabilitation of disturbed areas requiring revegetation as directed by a qualified botanist/ rehabilitation ecologist. The Contractor shall be responsible for appointing such a suitably qualified rehabilitation/ botanical/ horticultural specialist to compile a rehabilitation plan and oversee the rehabilitation process during and after the construction.

In general, topsoil from the site must be used for rehabilitation and the use of foreign soil/material must be avoided or minimised. Suitable indigenous vegetation must be used in areas where rehabilitation is required. This could be in the form of seeds collected from plants prior to their removal/ clearance, hydro seeding, relocation of rescued plants, on-site nursery plants, as recommended by the Botanist. Additional measures may be required for successful revegetation e.g., windshields, soil additives and soil indentations.

The Rehabilitation Plan including the monitoring and evaluation of rehabilitated areas will be provided by the appointed specialist where applicable.

68.21 General requirements

- Ensuring adherence to the environmental specifications;
- Ensuring that 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.
- Ensuring that any instructions issued by the Engineer, on the advice of the ECO, are adhered to.
- Ensuring 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;
- Ensuring that a register is kept at the site office, which lists all the transgressions issued by the ECO;
- Ensuring that a register of all public complaints is maintained.
- Obtain presentation of Key information pertaining to License and permits from the project/Environmental Manager.
- Budget for specialist studies/engineering changes for key risk areas
- 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.
- The most important actions by the Contractor to ensure compliance with the environmental requirements, relates to the establishment of an adequate and appropriate organizational structure for ensuring the implementation and monitoring of the requisite environmental controls.
- Compile an Environmental monitoring plans outlining all the construction activities, associated environmental impacts and how they will be mitigated;
- Ensure that the project pricing makes provision for environmental costs and expenditure reporting.
- Contractor shall attach a company waste management plan including the typical waste inventory and templates used for keeping waste records.
- Contractor shall attach Environmental Management system documentation that is aligned to ISO 14001
- Attend key meetings at Project level i.e., Centre of Excellence, External specialist/experts, authorities (DEA, DWS, DMR etc.
- Include environmental considerations as an item on the agenda of the monthly site meetings
- Undertake environmental awareness training of all site staff during the commencement of each Contract, with regular refreshers for the duration of the Contract.
- Environmental protection shall include, but not be limited to, the following issues:
- Noise pollution, gaseous emissions, noxious and/or offensive odours, liquid waste collection and solid waste separation and collection

- In the event of any perceived conflict between the “environmental laws” and the contract documents, the contractor shall, prior to commencing the work, refer such conflict to the project management team for clarification. Without limiting the contractor’s responsibilities under the applicable legislation, the work shall be conducted in such a manner as to ensure that:
- No substance that can harm or is likely to harm the environment is allowed to leak, spill or escape from any container or storage area.
- No oil or other effluent is permitted to escape into the drainage system and/or local storm water system.
- No oil or other effluent is permitted to escape into the ground and cause soil contamination.
- All air borne pollutants generated during execution of the Work are contained to prevent air pollution.
- No sediment generated is permitted to escape into the drainage system and/or local storm water system.
- No harmful solids or liquids are permitted to spill from containers whilst in transit on the premises.
- All oil-based waste material shall be kept segregated and placed in sealed 200 litre drums. This material shall be disposed of through a recognized oil recycling company.
- All water-based waste material shall be kept apart. Small amounts shall be collected and stored in 200 litre containers. Large amounts shall be pumped into a bulk tanker for disposal. Prior to disposal, all water-based material shall be sampled to allow analyses to be carried out.

69. Signing off of the contract

No project shall be signed off before Business Unit or Department has given assurance that there is plan to address existing environmental liabilities. 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.

The Contractor shall be conversant and in the course of carrying out the Works. The Contractor shall comply with the provisions of all Acts, regulations, ordinances, by-laws, Standards, Codes, Rules and requirements of public, municipal and other authorities.

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

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

70. SHE Audits

Eskom reserves the right to monitor and conduct unannounced audits to ensure compliance and provide assurance to the Client representatives and their key stakeholders.

71. Compliance and Approval of Contractor SHE Plan

The Contractor's SHE Plan will be audited against a compliance checklist so as to confirm compliance to the requirements in the Eskom SHE specifications. Once compliance is confirmed, only then will the contractors SHE plan be approved by the Client for implementation.

72. Contractor SHE Performance Evaluation

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

73. Internal Audits

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

74. Third Party Legal Compliance Verification Audits

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

75. SHE Plan Audits

There will be monthly audits conducted by Eskom on the Principal Contractor/s and/or contractors. These audits shall be attended by the contractor's site manager or his representative.

76. Documentation and Records Management

The Principal Contractor shall establish and maintain a documentation and records management system where all project and scope SHE related documentation and records are kept and maintained.

The Client shall have access to this system

77. Incident Investigation

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

All SHE incident reporting, classification and investigation will be done according to the requirements set out in the Eskom documents 32-95 (Occupational Health and Safety Incident Management Procedure) and 240-13307117 (Environmental Incident Management Procedure) (latest version)

78. SHE Performance Status Reports

The principal Contractor shall submit a weekly performance report with the following information as a minimum.

- Incidents: Lost time, medical; first aid, near misses, Property damage and environmental reported
- Manpower numbers per Principal contractor and Contractor Company
- Actual man-hours worked
- Status on incidents reported, investigated and recommendations
- Status on audits conducted and findings closed out.
- SHE Training attended

The due date for submitting this information is every Wednesday of the week at 15h00.

79. Contractors SHE Plan

All Contractors must use the applicable SHE information herein to develop a suitable and sufficient SHE plan, submitted with tender documents, which will indicate to the Client/Agent the level of compliance to the SHE requirements. The safety, health and environment plan shall identify each construction activity to be undertaken by the Contractor, the foreseeable internal and external hazards, the specific precautions and controls that shall be necessary to ensure that the works 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 plan shall demonstrate management's commitment to SHE.

The safety plan shall be reviewed to ensure that it fully addresses all the issues and complies with the requirements of the SHE Specifications and contract. If necessary, the Contractor shall amend the SHE Plan as required by the Client.

80. Omissions of this SHE Specification

By drawing up these SHE requirements 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 aspects pertaining to the work that is tendered for, the contractor needs to ensure that all applicable SHE requirements are identified and included in their management system.

81. SHE File

The Contractor must have a SHE file in which records of this specification and the SHE plan are kept. All information required in the specification and plan, for the duration of the Principal Contractor and contractor's contract, is to be recorded in the file.

- The SHE file that will be maintained will be per construction site.
- The Principal Contractor must also record on the file:
  - Information about removal or dismantling of installed plant and equipment
  - Hands information about equipment needing cleaning and maintenance, for future purposes
  - Nature, location and markings of services
  - As-built drawings

The file must be kept on site and must be available on request for audit and inspection purposes.

The SHE file shall be handed over to the Client at the end of the Principal Contractor's contract.

82. Hours of Work

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

The Principal Contractor will notify their Eskom Project Manager/Supervisor 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 form the Department of Labour

83. 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.

83.1 Overtime

The Principal Contractor will notify their Eskom Project Manager/Supervisor 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 form the Department of Labour

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.

84. Employees' 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.

85. Contract Sign Off

On completion of the project, all appointed contractors shall close out their project documentation and SHE Files and submit such to the Principal Contractor. The Principal Contractor shall likewise close out his/her project documentation and SHE files and hand it over to the Eskom Project Manager.