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|  | Form | Unique Identifier: Document Type: Revision: Total Pages: | 74 NFM 0 1 of 56 |
|---|-------------|---|---|

Title: SHE SPECIFICATION FORM

PROJECT NAME:

**SAFETY, HEALTH AND ENVIRONMENTAL
SPECIFICATION**

FOR

(INSERT SCOPE OF WORK HERE)

REFERENCE NUMBER: *(Insert Info Here)*
DATE OF COMPILATION: *(Insert Info Here)*
REVISION NUMBER: *(Insert Info Here)*

COMPILED BY:

1. **Name:** *(Insert Name and Signature here)*
(Health and Safety Manager/Practitioner)

2. **Name:** *(Insert Name and Signature here)*
(Insert Designation of a Technical Person Here)
(Optional Requirement)

3. **Name:** *(Insert Name and Signature here)*
(Insert Designation of a Designer Representative Here)

Approved By:

2. **Name:** *(Insert Name of Project Manager)*
(Must be at least an OHS Act Section 16(2) Appointee)

All italic fonts are to be revised / reviewed by the Project SHE specification review team.

MINIMUM REQUIREMENTS AND FRAMEWORK FOR A SAFETY, HEALTH AND ENVIRONMENTAL SPECIFICATION

The following sections contain minimum requirements that should be contained in all SHE specifications that are being developed. Depending on the scope of work tendered for, the site and/or the project, if there are any section/s or requirement/s that are not applicable in a specific project, then those sections or specific requirements should be deleted. If there are additional sections and/or requirements that are required then they should be added to the site and project specific SHE specification.

| | | | |
|---------------|-------------------------------|--------------------|----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 2 of 56 |

1 NOTE TO PRINCIPAL CONTRACTOR AND ITS SUB-CONTRACTORS

The SHE specifications are Eskom's minimum requirements. The contractor is expected to develop a SHE plan which meets these requirements as well as all the relevant applicable legislation. Eskom in no way assumes the Contractors legal responsibilities. The Contractor is and remains accountable for the quality and the execution of his health and safety programme for his employees and sub-contractor employees. This SHE specification reflects minimum requirements and should not be construed as all encompassing.

2 SHE SPECIFICATION

2.1 PROJECT AND SCOPE OF WORK DETAILS

2.1.1 Location: Address and identification of specific structures- reference to the contracts/other contractual documentation (works information) where the exact detail is contained.

2.1.2 Project description/detailed scope of work: Nature of construction activities involved- reference to the contracts/other contractual documentation (works information) where the exact detail is contained.

2.1.3 Programme details:

2.1.3.1 (For Engineering, Procurement and Construction Contracts Only): For Evaluation and Assessment of the Cycle: SHE plan 1 month prior to commencement of work.

2.1.3.2 Time allowed for preparation of SHE plan:

2.1.3.3 Anticipated date for the commencement of work on site.

2.1.3.4 Project completion date or project duration.

2.1.4 Site Details:

2.1.4.1 Schematic layout of project site including site plans/services and surrounding land uses or any sensitive features.

2.2 CLIENT/AGENT AND PRINCIPAL CONTRACTOR: DETAILS, ACCOUNTABILITIES AND RESPONSIBILITIES:

If there are any specific appointment/responsibility below that is not applicable, then that appointment/responsibility should be removed (as long as it is not a legally required appointment/responsibility).

There might be instances where one person may be fulfilling the responsibility of more than one role

The Eskom Project Organogramme is:

(Insert project structure here)

| | | | |
|---------------|-------------------------------|--------------------|----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 3 of 56 |

2.2.4 Client/Agent's Representative: *ESKOM OVERALL PROJECT/PROGRAMME MANAGER: NAME: (Insert Name Here)*

The overall Project/Programme Manager is the overall accountable person for the overall management of the project both on and off-site.

If applicable: If an Agent is to be appointed, - Appointment as per OHS Act, CR 4(5) as an Agent representative by the Client representative.

2.2.5 ESKOM DISCIPLINE/CONTRACT PROJECT MANAGER NAME: (Insert Name Here)

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

2.2.6 PROJECT/SITE MANAGER: NAME: (Insert Name Here)

The site manager/supervisor is a delegated responsible person appointed in terms of the OHS Act by the Section 16(2) delegated responsible person. He is responsible for the overall management of the project on-site and is accountable to the Discipline/Contract Project Manager.

2.2.7 DESIGNER: NAME: (Insert Name Here)

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

2.2.8 PROJECT ENGINEER: (Insert Name Here)

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

2.2.9 ESKOM: PROJECT HEALTH AND SAFETY MANAGER/PRACTITIONER: NAME: (Insert Name Here)

The responsibility of the Health and Safety Manager/Practitioner is to provide assurance, as well as advise, 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. He/She will be responsible for auditing and ensuring compliance to legal requirements.

2.2.10 ESKOM: ENVIRONMENTAL CONTROL OFFICER: NAME: (Insert Name Here)

Note: This position may be a permanent position on the Project Organogramme 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 Control 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 Record of Decision (ROD) and the Environmental Management Plan (EMP).

| | | | |
|---------------|-------------------------------|--------------------|----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 4 of 56 |

2.2.11 PRINCIPAL CONTRACTORS

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

2.2.12 PRINCIPAL CONTRACTOR AND SUB-CONTRACTOR SUPERVISORS

- a) The Principal Contractor shall ensure that the performance of all specified work is supervised, throughout the contract period, by a sufficient number of competent appointed representatives of the Principal Contractor and/or sub-contractor, who have experience in the type of work specified.

Note: No work may commence and or continue without the presence of appointed supervisor appointees during performance of the contracted work.

In determining the number of appointed competent supervisors, the nature and scope of work being performed, shall be taken into consideration.

- b) It must also be noted that the required appointed Construction supervisor (OHS Act CR 6.1) may not leave the site unless there is a sufficient number of appointed competent sub-ordinate supervisors (OHS Act – CR 6.2) on site to assist with supervision.
- c) The Principal contractor's Site Manager/Supervisor shall provide a list of names and contact telephone numbers of all his employees as well as the sub-contractors employees on site. This list shall be updated as and when new sub-contractors commence on site.
- d) The Principal Contractor's Site Manager/Supervisor shall keep a record of all employees including the sub-contractors employees, including date of induction, relevant skills and licenses, and be able to produce this list at the request of the Eskom Project Manager. These records shall be filed in the SHE File.
- e) The Principal Contractor shall ensure that 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.

2.2.13 PRINCIPAL CONTRACTOR AND SUB-CONTRACTOR SHE PRACTITIONER

The appointment of a full time SHE practitioner is required for the duration of the contracted work and part time appointments will not be allowed. The Contractors SHE Practitioner shall assist and support the Contractors Construction Manager to ensure that the contractors SHE responsibilities are fulfilled and compliance to the SHE specifications and SHE plan are met.

In determining the number of appointed competent SHE practitioner/s, the nature and scope of work being performed shall be taken into consideration.

| | | | |
|---------------|-------------------------------|--------------------|----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 5 of 56 |

2.2.14 CONTRACTOR EMPLOYEES ON THE PROJECT

2.2.14.1 The Principal Contractor is responsible for adequately informing his employees and sub-contractors of all relevant information of the Eskom issued SHE specifications and the Principal Contractors SHE plan.

2.2.14.2 Employees are responsible for their own health and safety and that of their co-workers in their area. 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.

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

2.2.14.4 It must be highlighted to all employees, that anyone who becomes aware of any person disregarding a safety notice, instruction or regulation shall immediately report this to the person concerned. If the person persists, stop the person from working and report the matter to the Eskom Site/Project Manager and the Principal Contractor Supervisor immediately.

2.2.14.5 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.

2.2.14.6 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.

2.2.14.7 All safety and warning signs must be obeyed at all times.

2.2.14.8 Entering or leaving the Site may only be done via the official designated walkways, do not take short cuts. Follow designated walkways to and from your work place. Walk, do not run, and be alert for motor vehicle traffic and mobile equipment.

2.2.14.9 All employees must adhere to the SHE and other site specific rules.

2.2.14.10 If any of the Principal Contractor's employees or his sub-contractor employees has transgressed any of the requirements of the SHE Specification, SHE plan or site rules, then the employee will be removed from site and his/her site access revoked. The Principal Contractor must follow a process of disciplinary action which shall include re-training/inducting the employee (at the cost of the Principal Contractor) and provide proof thereof to the Eskom site/Project Manager and upon the satisfaction of the Eskom Site/Project Manager will the employee be allowed back on site.

| | | | |
|---------------|-------------------------------|--------------------|----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 6 of 56 |

2.3 COMPLIANCE AND NON-CONFORMANCES

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

Should the Principal Contractor appoint a sub-contractor, the Principal Contractor would then have the same role and responsibility in relation to the sub-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 sub-contractors. Expenses incurred as a result of such work stoppage and standing time shall be for the Principal Contractors account. Any non-conformances/findings/observations found in these audits/inspections on sub-contractors shall be raised and discussed with the relevant Principal Contractor (with whom the sub-contractor is contracted with).

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

No claim will be accepted as a result of any costs or delays being incurred due to the Principal Contractor or his sub-contractors not complying with legislation, this SHE specification or their SHE plan approved by the Client/Agent.

2.4 LEGAL COMPLIANCE

It is required that all Contractors on site comply with the following legislation and standards:

- The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights).
- Occupational Health and Safety Act 1993 (Act 85 of 1993) and its Regulations.
- National Environmental Management Act 1998 (Act 107 of 1998).
- Environment Conservation Act 1989 (Act 73 of 1989).
- National Water Act 1998 (Act 36 of 1998).
- Conservation of Agricultural Resources Act 1983 (Act 43 of 1983).
- Civil and Building Work Act.
- Mine Health and Safety Act.
- COID Act.
- Any other applicable South African legislation.
- Applicable South African National Standards (SANS).
- Applicable international standards.
- Operating Regulations for High Voltage Systems.
- Plant Safety Regulations (Low Voltage Regulations).

It is the duty of the Principal Contractor and sub-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 on a regular basis.

| | | | |
|---------------|-------------------------------|--------------------|----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 7 of 56 |

2.5 SHE POLICY

The Principal Contractor and the sub-contractor companies shall each have a SHE Policy authorised by their Chief Executive (OHS Act Section 16(1) appointee) that clearly states overall SHE objectives and commitment to improving Safety, Health and Environment performance.

Eskom has a SHE Policy that clearly states the guiding principles by which Eskom operates and the commitment to SHE excellence and is authorised by the Chief Executive and the Managing Directors see Annexure A.

2.6 APPOINTMENTS AND COMPETENCIES

2.6.4 The Principal Contractor shall ensure that all their appointees are made aware of their accountabilities and responsibilities in terms of their appointment, and to advise and assist these appointees in the execution of their duties.

2.6.5 Appointment letters and competency certificates which are signed by the OHS Act Section 16(1) or 16(2) appointee which refers to the relevant training certificates and proof of experience of appointees must be submitted with the Health and Safety Plan.

2.6.6 All minimum required training that is stipulated below are to be provided by accredited training service providers.

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

(Note: If there are any appointments that are not applicable, then a brief explanation as to why they are not applicable should be made, but should an appointment become applicable during the duration of the contract work, then these appointments are to be made available)

2.6.7.1 OHS Act, Section 16(1) – Chief Executive Officer (only the details of Chief Executive required).

2.6.7.2 OHS Act, Section 16(2) – Assistant to Chief Executive Officer.

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

Staffing

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

Competencies/Training

- General Health and Safety Training
- Health and Safety Representative Training
- Hazard Identification and Risk Assessment Training
- Incident Investigation and Root Cause Analysis Training

| | | | |
|---------------|-------------------------------|--------------------|----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 8 of 56 |

Competencies for Short Term Contractors (working on site for less than 30 days)

Indicate which competent person will perform these duties:

- General Health and Safety monitoring
- Health and Safety Representative duties
- Hazard Identification and Risk Assessment duties
- Incident Investigation and root cause analysis duties

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

2.6.7.5 Chairperson of Health and Safety Committee

2.6.7.6 OHS Act, GSR 3 – First Aiders

Staffing

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

Competencies/Training

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

2.6.7.7 OHS Act, GSR 5(1) – Person that pronounces and certifies a confined space safe for the duration of work being conducted (applicable for confined spaces).

2.6.7.8 OHS Act, DMR 17(2) Goods Hoist Inspector

2.6.7.9 OHS Act, GAR 9 (2) Incident/Accident Investigator

2.6.7.10 OHS Act, DMR18 (11) Lifting Machinery Operator (Appointment or Permit)

2.6.7.11 OHS Act, DMR18 (5) Lifting Machinery Inspector

2.6.7.12 OHS Act, DMR 18 (10) (e) Lifting Tackle Inspector

2.6.7.13 OHS Act, EMR 9 Portable Electrical Equipment Inspector

2.6.7.14 OHS Act, VUP 10 Portable Gas Container Inspector

2.6.7.15 OHS Act, VUP 13 (1) (b) Pressure Vessels Inspector

2.6.7.16 OHS Act, Lifts, Escalators and Passenger Regulations (6) (1) – Competent person to examine and maintain lift, escalator or passenger conveyer

2.6.7.17 OHS Act, HCS Regulations 3 (3) Hazardous Chemical Substances Co-coordinator

2.6.7.18 OHS Act, Asbestos Regulations 21, Person registered as an Asbestos Contractor (Asbestos AIA) by the Department of Labour

| | | | |
|---------------|-------------------------------|--------------------|----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 9 of 56 |

2.6.7.19 OHS Act, CR 4 (1) Appointment of the Principal Contractor by the Eskom Client/Agent (to be done when contract is awarded)

2.6.7.20 OHS Act, CR 5 (3) (b) Sub-Contractor Appointment by the Principal Contractor (If appointing Sub-Contractors)

2.6.7.21 OHS Act, CR 6 (1) Construction Supervisor (appointed by the Contractor OHS Act Section 16(2) appointee)

Competencies/Training

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

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

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

2.6.7.22 OHS Act, CR 6(2) – Assistant Construction Supervisor (appointed by the Contractor OHS Act Section 16(2) appointee).

Competencies/Training

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

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

2.6.7.23 OHS Act, CR 6(6) - Construction Health and Safety Practitioner

Staffing

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

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 10 of 56 |

Competencies/Training

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

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

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

- 2.6.7.24** OHS Act, CR 7 (1) Person to Compile Risk Assessments
- 2.6.7.25** OHS Act, CR 8 (1) (a) Competent person to Compile Fall Protection Plan
- 2.6.7.26** OHS Act, CR 10 (a) Person to supervise Formwork and Support Work
- 2.6.7.27** OHS Act, CR 11(1) Person to supervise Excavation Work
- 2.6.7.28** OHS Act, CR 12 (1) Demolition Work Supervisor
- 2.6.7.29** OHS Act, CR 12 (11) Responsible Person in the Use of Explosives and development of the method statements
- 2.6.7.30** OHS Act, CR 15 (1) Suspended Platform Supervisor
- 2.6.7.31** OHS Act, CR 15(8)I Competent Person to Conduct Performance Test of Suspended Platforms
- 2.6.7.32** OHS Act, CR 14 (2) Scaffolding Supervisor
- 2.6.7.33** OHS Act, CR 17(1) Material Hoist Inspector
- 2.6.7.34** OHS Act, CR 18(1) Batch Plant Supervisor
- 2.6.7.35** OHS Act, CR 19 (2) (b) Explosive Powered Tool Inspector
- 2.6.7.36** OHS Act, CR 19 (2)(g) (i) Person responsible for issuing and collection of Explosive Powered Tools cartridges and nails or studs
- 2.6.7.37** OHS Act, CR 21(1) (j) Construction Vehicle and Mobile Plant Inspector

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 11 of 56 |

- 2.6.7.38** OHS Act, CR 22 (e) Temporary Electrical Installation Controller
- 2.6.7.39** OHS Act, CR 26 (a) Stacking and Storage Supervisor
- 2.6.7.40** OHS Act, CR 27 (h) Fire Fighting Equipment Inspector
- 2.6.7.41** Eskom requirement Emergency Planning Co-ordinator
- 2.6.7.42** Eskom requirement Fire Official
- 2.6.7.43** Section 37(2) agreement between Client/agent and Principal Contractor

2.7 TRAINING

The aim of this section is to outline Eskom's expectations in respect of the scope of the training which the Principal Contractor and sub contractor employees receive. The scope of the training includes but is not limited to the type of work being performed and the relevant procedures. Additional to the requirements, will be that the Principal Contractors and sub contractors would have the appropriate qualifications, certificates and tickets, and are under competent supervision. Records of all training and qualifications of all contractor employees must be kept. The Contractor shall maintain comprehensive records of all employees under his control (including all employees of the sub-contractor) attending induction training. Acknowledgement of receiving and understanding the induction must be signed by all persons receiving the induction respectively.

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

For existing contracted contractors: For appointees that do not meet the minimum competencies: full compliance to the above competencies would be expected within 6 months after the contract is placed. A training plan must be submitted on a weekly basis to reflect progress of meeting the minimum training requirements.

General

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

Site Induction

The Principal Contractor shall ensure that all his employees, agents and contractors have undergone the Project safety induction programme prior to commencing work on site.

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

Prior to induction all employees must undergo a pre-employment medical examination and found fit for duty. A copy of the certificate of fitness must be presented for permanent record at the induction centre and kept at site offices for permanent record.

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

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 12 of 56 |

General construction site induction carried out by the Principal Contractor

The Principal Contractor shall ensure that all his employees and sub-contractor employees undergo general work induction with regard to the approved SHE plan, general hazards prevalent on the construction site, construction risk assessment, rules and regulations, and other related aspects. The induction should also include identification of sensitive features such as wetlands/vlei areas, red data species, graves, etc.

Job specific induction carried out by the Principal Contractor/Sub-Contractor Supervisor on the site

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

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

Visitors to Site

Visitors to the site shall be required to undergo and comply with Client/Agents site-specific safety induction requirement prior to being allowed access to site.

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

2.8 CONTRACTOR'S SITE FACILITIES

The aim of this section is to outline how The Principal Contractor's site facilities should be managed.

- **Temporary Facility Layout Plan**
Include information here
- **Dining room facilities**
Include information here
- **Change rooms**
Include information here
- **Ablution facilities**
Include information here
- **Site Sheds, Offices and Amenities**
Include information here
- **Lay down and Storage**
Include information here
- **Site Access**
Include information here
- **Temporary Site Services**
Include information here

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 13 of 56 |

2.9 ACCESS CONTROL TO THE CONSTRUCTION SITE

The Principal Contractor in collaboration with the Client/Agent's representative will ensure that proper access control is in place and functional at all times on and off the construction site.

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 – *attach/refer to the traffic plan*.

This plan is to be reviewed at the monthly safety meeting to ensure its applicability.

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

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

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

The project/site security arrangements are: (This can be included here or referenced to another document).

2.10 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.

Enterprises Division Cardinal Rules

There are 5 cardinal rules that have been identified for the Enterprises Division. Failure to adhere to these rules by any Eskom Enterprises Division employee or employee of a Principal Contractor or sub-contractor 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 the Enterprises Division.

The rules are:

| RULE | DESCRIPTION OF RULE |
|-------------|---|
| Rule 1 | Stop, think, act, review A risk assessment shall be conducted prior to the work being carried out. (First stop and think; then act. On completion of the action, review the process.) |
| Rule 2 | Hook up at heights Any person who performs work higher than two metres above ground level shall be attached to an anchor point at all times, or as identified during the risk assessment. |
| Rule 3 | Test before touch The permit to work system shall be adhered to at all times and any person who performs work on an electrical installation shall ensure that it is isolated, tested and earthed before starting with any work. |
| Rule 4 | Buckle up Seatbelts shall be used at all times while driving. |
| Rule 5 | Sober up No person is allowed to be under the influence of intoxicating liquor or drugs while on duty. |

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 14 of 56 |

Enterprises 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 cardinal 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 Enterprises Division work site **returns home safely to his or her family**.

- **Personal Protective Equipment (PPE)**

The minimum required PPE on any construction site:

- Hard hat
- High visibility vest
- Steel toe cap safety boots for ankle support
- Other risk based PPE to be confirmed by the project team (e.g. eye protection or ear plugs)

- **Smoking**

Smoking is only permitted at designated areas.

Facilities to consist of a covered area, with bench seating, and provided with:

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

- **Cellular Phones**

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

- **Recognised Walkways**

When walking through the site or to personal work areas use recognised thoroughfare. Don't take short cuts or walk on uneven ground surfaces.

- **Vehicles and Traffic Rules**

Refer to Section on: "CONSTRUCTION VEHICLES and MOBILE PLANT" for requirements.

- **Fire Extinguishers**

All fire extinguishers shall be:

- Be clearly labelled
- Conspicuously numbered
- Entered in a register
- Inspected monthly by a competent person
- Tested and serviced at recommended intervals by an accredited supplier
- Results entered in the register and signed by competent person.
- No open or unattended fires are allowed within the Construction site.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 15 of 56 |

2.11 HAZARD AND RISK MANAGEMENT

The aim of this section is to:

- Highlight the construction site SHE risks and hazards (Reference must be made to the EIA, EMP, RoD's and the client/agent's baseline hazard identification).
- Request the Principal Contractor/s and his/her subcontractors to identify hazardous and potentially hazardous work operations. The principal contractor needs to demonstrate that the site hazards and the contractor's activity risks and the mitigating measure have been considered in his risk assessments.
- There must be method statements or written safe work procedures for all the Contractor activities.
- Emerging risks and hazards must be managed during construction work.

Activity based risk assessments must be conducted by an appointed and competent person of the Principal Contractor.

Preliminary hazard identification shall be conducted by the Principal Contractor prior to work beginning on site.

(a) Site Specific Health and Safety Hazards

In complying with the requirements of Regulation 4(1) (b) of the Construction Regulations of the OHS Act, the Eskom Site/ Project Manager will outline the site specific health and safety hazards pertaining to the environment and physical conditions that the contractor will be exposed to in performing his work on site.

This section shall be reviewed by the project manager, the client and/or agent and design team to make it project/site specific.

The Eskom Project Manager will make all reasonable efforts to ensure that the information provided is complete and correct. However, the Principal Contractor shall make his own assessment of the hazards and risks associated with the work under the Contract.

The site and project specific hazards are listed below in this SHE specification in order to make potential Contractors aware of the hazards:

(List the site and project specific hazards here) – See Form 22, 23 and 24, for triggers/prompts when compiling the list of hazards per each area of the project.

It is however pointed out to the Principal Contractor that the list may not be totally comprehensive and it is the duty of each Principal Contractor to ensure that all the hazards are identified, before and during the project, and the necessary activity-based risk assessments are carried out. These risk assessments shall form part of the SHE Plan which will be passed on for scrutiny and approval by the Client/Agent's representative.

(b) Hazardous and Potentially Hazardous work operations and Emerging Risks

The Contractor shall identify hazards and potentially hazardous work operations. For each work operation identified, the Contractor shall supply Risk Assessment, which shall:

- Describe the operation to be performed in the sequence of the basic job steps.
- Identify and rank the hazard or potential hazard.
- Describe how the hazard will be managed.
- Identify the responsible person for each mitigation action.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 16 of 56 |

There must be method statements and written safe work procedures for all activities.

During construction work, the Principal Contractor, his sub-contractors or the Eskom Representative may identify emerging hazards and risks. For each such newly identified hazard or risk, the Eskom Project Manager shall review the baseline site hazard identification and the relevant section/s SHE specification. The revised SHE specification and hazard identification shall be submitted to the Principal Contractor who will review his own risk assessments and relevant sections of the SHE plan, as well as those of the sub-contractors. The Principal Contractor will prepare and submit to the Eskom Project Manager, both documents for approval.

The Principal Contractor and his subcontractors shall not proceed with the work/operation in hazardous areas until the Client/Agent's representative has reviewed the Risk Assessment and has approved and signed the revised SHE plan and issued a valid permit to work and work as per Eskom's Plant Safety Regulations (GGS0992) and/or ORHVS Regulations.

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. 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 will be filed in the Principal Contractor's safety file.

(c) Risk Assessment (Additional Guidelines)

Activity based risk assessments must be conducted and approved by the Principal Contractor's competent person before any activity begins on site and must be updated regularly to ensure its relevance to changing scope and/or circumstances.

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

The process involves input from the site manager, supervisor(s), safety practitioner, and the specialist artisans for the job as well as the health and safety representative for the workplace concerned. Additional operation specific risk assessments are required for certain tasks throughout the project.

Guidelines for actual steps involved in an operation specific risk assessment are:

- Each activity is listed;
- Specific hazards are identified and listed against each activity;
- The magnitude of each risk is rated as Low. Medium or High;
- All known documentary and supervisory controls are listed. For instance: What Safe Work Procedures exist for scaffolds and ladders;
- The relevance, effectiveness and sufficiency of these controls are assessed;
- In the event of deficient controls for the particular activity. Actions to be taken will be recorded and safe working procedures drawn up;
- Persons responsible for implementing and supervising the task are to be identified. Nominated and duly assigned;
- Persons responsible for monitoring the task and carrying out the Planned Job Observation must be nominated;

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 17 of 56 |

- Completed Risk Assessment must be handed to the Eskom Site/Project Manager representative for comment and approval;
- The relevant section of the risk assessment is to be issued with a Transmittal Note to the Supervisor nominated as the responsible person; and the
- Names of workmen who have received instruction on the work content and the sequence of the activities listed in the risk assessment are to be recorded, obtain their confirmation of comprehension of their roles (signature or other markings). This instruction must be done through an interpreter if required and recorded on the Pre-Job Brief (Daily Safe Task Instructions), with reference to applicable Risk Assessments.

2.12 SAFE WORK PROCEDURES AND PRACTICES

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

There must be written safe work procedures for all activities. Risk Assessments should refer to the safe work procedures. A safe working procedure should be written when:

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

The safe working procedure should identify:

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

2.13 HIGH RISK ACTIVITIES

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

- a) Ensure that permanent and adequate on site supervision is available for the entire duration of the work that is being conducted.
- b) 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.
- c) 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;

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 18 of 56 |

The Principal Contractor shall maintain, at all times, defined access ways, which is clear of objects or obstructions, so as to allow for emergency vehicle entry.

The Principal Contractor shall provide any temporary protective shielding required for protecting nearby operations from the construction activities, at his own cost.

2.14 OCCUPATIONAL HEALTH, REHABILITATION AND HYGIENE

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

Workers Compensation

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

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.

Medical Surveillance Programme

- The Principal Contractor must ensure that his employees and sub-contractor employees shall be registered on a medical surveillance programme and shall be in possession of a valid medical health certificate. The certificate of fitness is also required that is relevant to the type of work (risk based) that the employee will be conducting.
- The Principal Contractor must ensure that his employees and sub-contractor employees have undergone pre-entry medical examination before starting work on site should it be for longer than three (3) days. An exit medical examination must be done by all employees before leaving site.
- The certificate shall be issued before commencement of work and shall be presented at induction. If the Principal Contractor does not provide proof of valid certificates of fitness for his employees and sub-contractor employees, then Eskom will not give those employees site access.
- The certificate shall be renewed annually (for employees who are not office bound including drivers) and once every 3 years (for employees that are office bound) (until completion of the project) at which stage an exit medical examination shall be conducted, unless otherwise advised by the Occupational Health Practitioner.
- 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 his ability to work on site.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 19 of 56 |

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

Emergency Care

- A list of emergency numbers must be posted at phones and in every office. Principal Contractor must ensure that his employees and sub-contractor employees are familiar with the emergency numbers and also are provided with stickers, with the emergency numbers printed on, to place inside their hardhats.
- The Enterprises Division has established a contract with Euro Assistance for all employees and its contractor employees for emergency medical assistance incurred whilst on duty anywhere in South Africa. The telephone number is 0861 2ESKOM or 0861 237566.
- Contractors shall have one first aid box for the first 5 persons and thereafter one for every 50 or team of workers on site or part thereof.
- More first aid boxes shall be provided if the risks, distance between work teams or workplace requirements require it (it should be available and accessible for the treatment of injured persons at that workplace).
- Minimum contents of a first aid box:

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

Item 1: Wound cleaner/antiseptic (100ml).

Item 2: Swabs for cleaning wounds.

Item 3: Cotton wool for padding (100 g).

Item 4: Sterile gauze (minimum quantity 10).

Item 5: 1 Pair of forceps (for splinters).

Item 6: 1 Pair of scissors (minimum size 100 mm).

Item 7: 1 Set of safety pins.

Item 8: 4 Triangular bandages.

Item 9: 4 Roller bandages (75 mm X 5 m).

Item 10: 4 Roller bandages (100 mm X 5 m).

Item 11: 1 Roll of elastic adhesive (25 mm X 3 m).

Item 12: 1 Non-allergenic adhesive strip (25 mm X 3 m).

Item 13: 1 Packet of adhesive dressing strips (minimum quantity, 10 assorted sizes).

Item 14: 4 First aid dressings (75 mm X 100 mm).

Item 15: 4 First aid dressings (150 mm x 200 mm).

Item 16: 2 Straight splints.

Item 17: 2 Pairs large and 2 pairs medium disposable latex gloves.

Item 18: 2 CPR mouth pieces or similar devices.

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

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 20 of 56 |

Employee Assistance Programs (EAP)

Where Principal Contractors and sub-contractors do not have EAP service providers, then Eskom's EAP service provider is available to provide assistance. All costs are to be borne by the Principal Contractor. Details are: ICAS – Tel. No.: 0800 611 059.

Welfare

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

- Shower facilities.
- Sanitary facilities.
- Changing facilities.
- Eating areas.
- Drinking water at strategic locations on site.
- Safe pedestrians walk ways.

Water for drinking/consumption purposes shall be drawn only from taps in messing areas and ablution blocks and at points on Site marked "drinking water".

No equipment or system shall be connected onto the drinking water system without prior approval of the Client/Agent's representative.

The Contractor will be required to provide their own accommodation for the workers.

2.15 EMERGENCY PREPAREDNESS AND RESPONSE

The aim of this section is to remind the Principal Contractors and his sub-contractors about the importance of developing a site specific emergency response plan.

Using the Eskom site specific emergency plan, the Principal Contractor, together with his sub contractors, will develop their own emergency response plan (as a guideline) for both site and offices and submit this plan to the Eskom Project Manager for approval. It may be decided that one site specific emergency response plan be used for all contractors. He will ensure that his employees and his sub contractor employees are trained on this plan.

Periodic emergency drills will be undertaken by Eskom; however, the principal contractor must initiate his own emergency drills with permission from the Eskom project manager. This must be recorded and provided on request.

2.16 ENVIRONMENTAL MANAGEMENT

The aim of this section is to outline Eskom's requirements with regards to management of the environment in and around the construction site.

The following criteria need to be complied with by any Contractor before performing work.

Refer to the Project Environmental Management Plan (EMP).

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 21 of 56 |

1 Spillage of Hazardous Chemical Substances

A register of Hazardous Chemical Substances and Material Safety Data Sheets should be kept on site.

Herbicide usage

Herbicide register for usage to be compiled and maintained, and a copy handed to the project leader / environmental advisor on completion of the project / contract. The application of herbicides to be in accordance with the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act No. 36 of 1947. Only approved and tested herbicides with a low environmental risk shall be used.

Only registered pest control operators may apply herbicides on a commercial basis. All staff applying herbicides must be trained in the application of herbicides.

2 Fire hazard

The Contractor shall ensure that staff are 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 must ensure that operations are in compliance with statutory requirements at all times.

3 Waste

A register of hazardous waste. A waste plan is to be compiled before commencing of work. A register of hazardous waste. Keep record of disposal. No waste, whether it be biodegradable or not, is to be left on site once work has ended. Domestic and hazardous waste generated will not be burned, buried, or disposed of on ENTERPRISES DIVISION or other Landowners' property but will be controlled and removed to a registered waste site on a regular basis. (Daily / Weekly). The contractor and sub-contractor working on site must ensure that oil, fuel, and chemicals are confined to specific and secure areas throughout the construction period. These materials must be stored in a bunded area with adequate containment for potential spills and leaks.

Contractors must ensure that sufficient waste bins / containers are made available for waste control.

4 Material requirement

The use of any material or property belonging to a specific Landowner will not be undertaken prior to arrangements with the applicable Landowner. Written proof of such agreement to be handed to project leader / co-coordinator for record keeping

5 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 must be stipulated in the contract.

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

Dust suppression measures must be in place to reduce the dust caused by the movement of heavy vehicles.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 22 of 56 |

6 Environmental Incidents

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

All environmental incidents occurring on site must be recorded, detailing how each incident was dealt with. Proof thereof must be kept in an incident register.

The Contractor will be held liable for any infringement of statutory requirements of the Environmental Conservation Act, No 73 of 1989, or any other relevant legislation.

7 Water

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

Water usage on site to be verified with the substations/powerstations responsible person, the project leader / environmental advisor to ensure compliance with legislation. Bore hole water must be verified for human consumption fitness. All incidents related to water contamination to be reported within 24 hours.

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

8 Signing off of the contract

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

No invoice to be processed before work 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.

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 Contractors' responsibilities under the Applicable Legislation, the Work shall be conducted in such a manner as to ensure that:

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 23 of 56 |

- No substance, which can harm or is likely to harm the environment, is to be 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 powdered 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 recognised 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.

2.17 FORUMS FOR SHE COMMUNICATION

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

The Principal Contractor/s and their sub-contractor/s will have to provide a communication strategy outlining how they intend to communicate SHE issues to their staff, the mediums they will employ and how they will measure the effectiveness of their SHE communication.

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

Attendance lists shall be kept for all the health and safety meetings.

Matters that are discussed includes and not limited to:

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

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 24 of 56 |

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

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

a) Project Executive SHE Committee Meeting

Objective: this is the overall governing forum for all SHE issues affecting the project. The Committee shall meet to discuss safety issues concerning the current work being performed, training, upcoming work and safety requirements, incidents and lessons learned, specific safety problems, safety performance, action plans and other relevant safety issues.

Chairman: Eskom Project Manager

Frequency: Monthly

Required Attendees:

- Principal Contractor/s and their sub-contractor/s:
 - All Project Managers
 - Senior Supervisors
 - Statutory Health and Safety Representative
 - Safety Practitioners
- Eskom:
 - All Project Managers
 - Contract Supervisors
 - Safety practitioners
 - Statutory Health and Safety Representatives
 - Environmental practitioner
 - Occupational Health Nurse (if applicable)
 - Head of Security (if applicable)

b) Select option 1 or 2

1) For Power Station Type Projects: Area (E.g.: Boilers; Turbines, etc.) Specific Health And Safety Meeting

2) For Power Delivery Projects Only: HV Yard/Substation/Line Specific Health and Safety Meeting

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

Chairman: Eskom Area Project Manager (Power Station Projects)/Project Site Manager (Power Delivery Projects)

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 25 of 56 |

Frequency: Weekly

Required Attendees:

- Principal Contractor/s and their sub-contractor/s
 - Safety practitioners working in that area
 - Supervisors working in that area
- Eskom:
 - Contract Supervisors
 - Safety practitioner

c) Project SHE Review Meeting

Objective: this is the forum where all SHE issues affecting the whole project are discussed on a daily basis. Duration is approximately 30 minutes. This meeting occurs before the daily toolbox talks. The matters arising from this meeting should be fed into the daily toolbox talks.

Chairman: Eskom Health and Safety Manager/practitioner

Frequency: Daily

Required Attendees:

- Principal Contractor/s and their sub-contractor/s
 - Safety practitioners
 - Health and Safety Representatives
- Eskom:
 - Safety practitioners
 - Health and Safety Representatives
 - Environmental practitioner

d) Progress Meeting

Objective: this is the forum where area specific status and the overall project status are discussed. SHE issues are standing agenda points on this forum.

Chairman: Eskom Project/Site Manager

Frequency: Daily (for Power Plant projects)

Bi-Weekly (for Power Delivery Projects)

Required Attendees:

- Principal Contractor/s and their sub-contractor/s
 - Project Managers
 - Site managers
- Eskom:
 - Project Managers
 - Contract Managers
 - Health and Safety practitioners

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|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 26 of 56 |

e) General Walk Down

Objective: to raise the awareness of the Project Managers on SHE issues on site as well as to demonstrate Visible Felt Leadership to persons on site. Project Managers are expected to identify both strengths and areas for improvement regarding SHE issues. Deviations and strengths arising from this walk down must be directed to the relevant responsible Eskom area/site project managers. Feedback on the status of the close out must be given at the different forums mentioned in this section.

Rotating Chairmanship: Eskom Project/Site Managers

Frequency: Weekly

Required Attendees:

- Eskom:
 - Area/Discipline Project Managers
 - Health and Safety Practitioners

f) Pre-Job Brief Meeting

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

Chairman: Contractor Supervisor

Frequency: Daily

Required Attendees:

- Principal Contractor/s and their sub-contractor/s
 - All relevant personnel

g) Contractor Statutory SHE Meetings

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

- Hazardous conditions
- Hazardous materials / substances
- Work procedures
- Protective clothing / equipment
- Housekeeping
- General SHE topics
- Off the job safety

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|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 27 of 56 |

Chairman: Principal Contractor Construction Supervisor

Frequency: Monthly

Required Attendees:

- Principal Contractor/s and their sub-contractor/s
- Project Managers
- Site managers
- Supervisors
- Health and Safety Practitioners
- Health and Safety Representatives

All other relevant statutory meetings as prescribed in the OHS Act need to be complied with.

2.18 CONSTRUCTION VEHICLES AND MOBILE PLANT

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

2.18.2 All drivers of construction vehicles and mobile plant to have medical certificates of fitness. Each Project site will have system/ process to manage vehicle access to site. This process/system must be defined here.

2.18.3 The speed limit within the bounds of the construction site is _____ km/h. (To be completed by the project team).

2.18.4 No drivers or operator may talk on cell phones or two way radios whilst driving, unless a hands free kit is used.

2.18.5 It is the responsibility of the driver to ensure:

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

2.18.6 All requirements with regard to the transportation of tools/equipment/material and persons on the back of construction vehicles must be adhered to:

- If contractors are to be transported in the back of construction vehicles, then those vehicles are to be fitted with canopies that meet the required SANS standards;
- Tools, equipment and material to be secured in order to prevent movement;
- Fixed and firmly secured seats with seat belts – adequate for the number of passengers being transported;
- Construction vehicles to be fitted with roll over bars as per SANS standards;
- The driver and all passengers to be seated with seatbelts fastened whilst the vehicle is in motion.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 28 of 56 |

2.18.7 The Principal Contractor shall ensure that his employees and those of his subcontractors do not.

2.18.8 Ride on back of elevators, cranes or other mobile plant equipment.

- Leave vehicles unattended with the engine running.
- Park vehicles in unauthorised zones/areas.

2.18.9 Eskom reserves the right to search any vehicle on the premises or when entering or leaving the premises.

2.18.10 The Contractor shall be solely responsible for the safety and security of any of his vehicles (including private vehicles) on the premises.

2.18.11 The Contractor shall attach identification markers on all of their vehicles that are permitted to enter the site.

2.18.12 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.

2.18.13 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.

2.18.14 The Contractor must maintain his vehicles in roadworthy condition and a valid license. These vehicles shall be subject to inspection by the Client/Agent's representative. Vehicles which are not roadworthy will not be allowed onto the site.

2.18.15 In the event where the principal Contractor and his sub contractor do not own the equipment, the principal Contractor is still responsible for ensuring all conditions are complied with by all of his subcontractors or hire companies.

2.18.16 Drivers/operators shall be responsible for the travel-worthiness of all loads conveyed by them. Precautions shall be taken to lash all loads properly. Loads projecting from vehicles shall be securely loaded and in daytime a red flag and during darkness a red light or red reflective material shall be attached to the extreme end of such projecting material.

2.18.17 All servicing and repairs must be carried out by the Contractor in a designated area.

2.18.18 All waste from servicing must be disposed of in accordance with the environmental legislation.

2.18.19 Every mobile machine whose vision is impaired when reversing must have a siren/hooter, which sounds, when the machine is reversing. This includes trucks, cranes, loaders, etc.

2.18.20 Operators have great difficulty in seeing light vehicles behind their machines. Drivers of light vehicles must avoid stopping or parking in the vicinity of machines. At least 30 (thirty) meters must be left clear between such a vehicle and such a machine.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 29 of 56 |

2.19 HOUSEKEEPING

- 2.19.1** The Principal Contractor and his sub-contractor shall maintain a high standard of housekeeping within the site. Prompt disposal of waste materials, scrap and rubbish is essential. Stipulate as to whether waste separation and removal is for the account of the Principal Contractor or for Eskom. Refer to what the requirements are in the EMP.
- 2.19.2** Adequate care must be taken by the Contractor to ensure that storage and stacking is correctly and safely carried out.
- 2.19.3** Before stacking any material, the Contractor, sub-contractor or their employees must consult the Eskom Project/site Manager for allocation of a stacking area.
- 2.19.4** Materials/objects shall not be left unsecured in elevated areas –falling objects may cause serious injuries/fatalities.
- 2.19.5** Nails protruding through timber shall be bent over or removed so as not to cause injury.
- 2.19.6** All packaging material including boxes, pallets, crates, etc. to be removed from the work area immediately.
- 2.19.7** Meal rooms shall be kept in a clean and tidy manner.
- 2.19.8** 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.
- 2.19.9** 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 sub-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.
- 2.19.10** 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.

2.20 SIGNAGE

All symbolic safety signage, that the Principal Contractor or his/her sub-contractors are to use/display are to conform the requirements of SANS 1186.

The display of the following signs 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

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 30 of 56 |

- “Radio-Active Material” symbolic signs at radioactive storage areas.
- The location of every first aid box; fire extinguisher and emergency exit is to be clearly indicated by means of a sign.
- At the entrance to premises where machinery is used: Restricted access on “Authorised Person Only” signs on entry.
- When in use, an explosive Power Tool shall have a sign, warning people of its use.

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.

2.21 HAZARDOUS MATERIALS/CHEMICALS MANAGEMENT

The aim of this section is to outline to the Principal Contractors and his sub-contractors how hazardous substances, as defined in the Hazardous Chemical Substances Regulations (OHS Act), should be managed.

Prior to any HCS being brought onto the site or produced on the site, the Principal Contractor shall supply the Eskom Project Manager with the following:

1. Material Safety Data Sheets (MSDS) in accordance with the requirements of the OHS Act – Regulations for Hazardous Chemical Substances;
2. Purpose for bringing the hazardous substance onto the site;
3. Proposed arrangements for safe storage;
4. Proposed methods for handling/usage;
5. Proposed method of disposal;
6. Hazard communication / training plan.

The information is to be provided at least **two (2) working days** prior to the expected delivery on site.

The Eskom Project Manager shall approve the use of any hazardous substance after receiving the above information.

No HCS are not to be brought onto the site until the Eskom Project Manager approval is received.

All HCS containers to be clearly labelled. Containers that are not marked will not be allowed. No HCS to be stored in food or drink containers.

Users of HCS to wear/use the correct PPE as per the HCS material safety data sheet.

Users of HCS to be adequately trained in the HCS that they are handling.

The Contractors to have and maintain a register with all the HCS that they have on site.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 31 of 56 |

Flammable and Combustible Liquids

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.

A maximum storage of 40 litres of fuel is allowed to be stored. Anything greater than 40 litres to be stored a flammable/combustible liquid store.

Adequate numbers of dry chemical fire extinguishers, each with a minimum capacity of 4.5 kg, shall be provided, installed and maintained.

Before a machine is refuelled, the motor must be stopped. Refuelling shall take place at designated safe areas and appropriate warning signs installed. Suitable drip trays must be used to prevent spillage at the filling nozzle.

All fuel storage areas must comply with the following requirements: -

- 1) Storage should be well clear of buildings.
- 2) Storage areas must be kept free from all combustible materials.
- 3) All danger signs must be prominently displayed, i.e.
 - Flammable Liquid.
 - No Smoking.
 - No Naked flames.
 - Hazchem identification.
- 4) Adequate fire fighting equipment must be available.
- 5) Diesel tanks will be installed in a bunded area; bunded area must be able to contain 110% of tank capacity.
- 6) Bunded area shall be of a concrete or steel construction.
- 7) Bunded area shall have a drain valve.
- 8) No other material/equipment shall be stored in the bunded area.
- 9) See Construction Regulation 23, of the OHS Act.

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.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 32 of 56 |

Compressed Gas Cylinders

(General Safety Regulation 9) and SABS 1548

The following requirements apply to all gas cylinders storage:

- 1) Contractors shall establish storage areas as approved by the Eskom Project Manager.
- 2) Storage areas should be well clear of buildings.
- 3) The storage areas shall be fenced, shaded, stable, and solid surfaces.
- 4) For security and ventilation purposes, a wire mesh fence should surround the storage area. Keep the enclosure locked.
- 5) All danger signs must be prominently displayed at storage area; e.g.
 - No Smoking.
 - No naked flames.
- 6) A protective covering must be provided.
- 7) Adequate ventilation must be provided.
- 8) Storage areas must be kept free from all combustible materials; no other materials must be stored in cylinder enclosure.
- 9) Full cylinders must be kept apart from empty cylinders so that it will not be necessary to open valves to check whether cylinders are empty or full.
- 10) Cylinders must always be chained separately in an upright position and special stands must be used for cylinders.
- 11) Cylinders must be stored in rows with aisle in-between for easy removal in event of fire.
- 12) Mark empty cylinders clearly and move to approved storage areas.
- 13) Adequate fire fighting equipment must be available.
- 14) Cylinders for different gasses must be stored separately.
- 15) Flammable and oxidising gasses must not be stored together; greases and oils must never be allowed to come in contact with oxygen.
- 16) Only flame-proof electrical lighting should be used, if required.
- 17) Cylinders will only be allowed on site in an approved trolley, properly secured and with a chain.
- 18) All gas cylinder torches to have flashback arrestors fitted on both sides.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 33 of 56 |

2.22 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 sub-contractor employees at the construction site, including visitors, shall use the following SANS or the relevant internationally recognised authority approved risk based PPE at all times, as a minimum:

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

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

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 shall be removed from the Site.

Safety belts are not allowed on site. Only double lanyard safety harnesses are allowed and must be used when conducting work at elevated positions.

Welders, brazers, cutters and aiders have shall wear suitable eye protection, gloves and apron spats and screens shall be provided to protect onlookers and passers-by.

Suitable impact resistant eye protection shall always be worn for grinding, chipping and chasing, and screens shall be provided to protect onlookers and passers-by.

When working with hazardous chemical substances, (e.g. acids or caustic), suitable eye protection, gloves and special overalls shall be worn.

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

Ear protection shall be worn in any designated noise zone.

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

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 34 of 56 |

Notices and Signs

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

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

Issue, Replacement and Control of PPE

- The Principal contractor must provide a detailed programme on the issuing, maintenance and replacement of PPE for all his employees and subcontractors on site.
- The Principal contractor is required to keep an updated register of all PPE issued, including that of his employees and sub-contractors.

2.23 MACHINERY, TOOLS AND EQUIPMENT

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

- 2.23.1** The Contractor shall ensure that all machinery, tools and equipment are identified, safe to be used and is maintained in a good condition.
- 2.23.2** 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.
- 2.23.3** The Principal Contractor shall ensure that all machinery, tools and equipment to be listed on an inventory list and handed to security with a copy kept on site.
- 2.23.4** 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.
- 2.23.5** All machinery, tools and equipment must have the necessary approved test or calibration documentation where applicable prior to being brought onto the premises and the records shall form part of the SHE plan.
- 2.23.6** All fuel driven equipment must be inspected by the Eskom SHE Practitioners prior to mobilizing it onto site.
- 2.23.7** All fuel driven equipment must be properly maintained in accordance with the manufacturer's recommendations and legal requirements.
- 2.23.8** The Contractor shall supply, at his cost, all items of plant and equipment necessary to perform the work else otherwise indicated.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 35 of 56 |

2.23.9 The Client/Agent reserves the right to inspect items of plant or equipment brought to site by the Contractor for use on this Contract. Should the Client/Agent find that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the Client/Agent shall advise the Principal Contractor in writing and the Principal Contractor shall forthwith remove the item from the site and replace it with a safe and adequate substitute. In such cases, the Principal Contractor shall not be entitled to extra payments or extensions of time in respect of delay caused by the Client's/Agent's instructions.

2.23.10 The Principal Contractor/sub-contractor will ensure that he has all the necessary registers to record all tools and equipment.

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

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

2.24 MACHINE GUARDING

2.24.1 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 on the safety file.

2.24.2 The machine or tool should be guarded to prevent limbs or loose clothing from getting under, into, above or around the dangerous moving parts.

2.24.3 Every shaft, pulley, wheel-gear, sprocket, coupling, clutch, friction drum, spindle end screw, key, bolt on a revolving shaft, driving belt, chain rope or similar object shall be securely fenced or guarded.

2.24.4 Guards should form a permanent part of the machine or tool, easy to remove non corrosive, rigged and as far as reasonable heat resistant.

2.24.5 Machine guards must be painted on the outside in the same colour as the machine or tool.

2.24.6 Inside of guards and moving or rotating parts must be painted orange.

2.24.7 All guards must 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 should be used which indicate the name, number of the machine or tool and the number of guards.
- The register should be kept on the safety file

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 36 of 56 |

2.25 AND TOOLS AND PNEUMATIC TOOLS

- 2.25.1** All hand tools (hammers, chisels, spanners, etc) must be recorded on a register and inspected by the supervisor on a monthly basis as well as by users prior to use.
- 2.25.2** All pneumatic tools should be numbered, recorded and inspected at least monthly as well as by users prior to use. And the revolutions per minutes measured in accordance with the manufacturer specifications.
- 2.25.3** Tools with sharp points in tool boxes must be protected with a cover.
- 2.25.4** All files and similar tools must be fitted with handles.
- 2.25.5** The Principal Contractor must have a policy on make shift tools on site.
- 2.25.6** It is illegal for a pneumatic tool to be operated by using a compressed gas cylinder. Pneumatic equipment shall only draw supply from mobile air compressors or from compressed air lines installed within the premises after gaining permission from the Client/Agent Representative.
- 2.25.7** When using the interlocking type of connection of an airline, connectors shall be secured with wire clips through holes provided to prevent accidental disconnection.
- 2.25.8** Compressed air shall NOT be used for any purpose other than that for which it is provided. Compressed air should not be used to remove dust from clothing.
- 2.25.9** Hoses to be orderly routed and elevated if required in order to prevent tripping hazards.

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

2.26 OILERS, PRESSURISED SYSTEMS AND VESSELS UNDER PRESSURE

- 2.26.1** The Principal Contractor shall ensure that all vessels under pressure are inspected by an Approved Inspection Authority and he shall be in possession of the manufacturer's certificate.
- 2.26.2** All pressure vessels shall be provided with at least one safety valve and such safety valve should be kept locked.
- 2.26.3** The vessel under pressure should be provided with a manufacturer's plate.
- 2.26.4** The vessel under pressure should be fitted with a pressure gauge in Pascal and the maximum permissible operation pressure marked with a red line on the dial.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 37 of 56 |

Records

- Inspection registers for vessels under pressure
- The certificate from the manufacturers
- Registration certificate of an Approved Inspection Authority

2.27 EXPLOSIVE POWERED TOOLS

Written permission to use these tools on site must be obtained by the Eskom Project/Site Manager.

- 2.27.1** Only certified, competent, appointed personnel (CR. Reg. 19 (1)) are allowed to operate explosive powered tools on site.
- 2.27.2** A valid permit must be obtained before commencement of work.
- 2.27.3** Safety signs and barriers must be erected before explosive power tools are used.
- 2.27.4** Users should be issued with suitable protective equipment.
- 2.27.5** Cartridges and explosive power tools to be stored separately.
- 2.27.6** Refer to the requirements of the Construction Regulation 19 of the OHS Act.

Records

Register for the issue and return of cartridges.

2.28 LIFTING MACHINES AND LIFTING TACKLE

- 2.28.1** 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.
- 2.28.2** 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 sub-contractor he must enter the name of the sub-contractor into the notification letter to the Department of Labour.
- 2.28.3** All lifting machine operators shall be competent to operate a lifting machine. They must be in possession of a valid permit.
- 2.28.4** When ever you are making use of an external contractor to do lifting work the Principal Contractor must 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.
- 2.28.5** The Principal Contractor should verify if the lifting machines have been examined and a performance test done.
- 2.28.6** The training should have been done according to the Code of practice by a provider registered by the Department of Labour.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 38 of 56 |

- 2.28.7** Before using any lifting machines or tackle the operator should inspect it.
- 2.28.8** All lifting machines shall be examined and subjected to a performance test by an accredited person/company at intervals not exceeding 12 months.
- 2.28.9** All lifting tackle should be examined by an accredited person/company at intervals not exceeding 3 months.
- 2.28.10** Refer to the requirements of the Driven Machinery Regulation 18 and Construction Regulation 17 and 20 of the OHS Act.
- 2.28.11** All lifting tackle should be recorded on a register.
- 2.28.12** All hooks shall be fitted with a safety latch/catch.
- 2.28.13** A lock out system should be implemented to ensure that only an operator that is competent can draw lifting machines and fork lifts.
- 2.28.14** All lifting tackle should be conspicuously and clearly marked with identification particulars and the maximum mass load which it is designed for.
- 2.28.15** No person shall be moved or supported by means of a lifting machine unless such a machine is fitted with a cradle approved by an inspector.
- 2.28.16** A risk assessment should be conducted prior to starting with the task.
- Account should be taken of wind forces.
 - Lifting machines are erected taking into account a safe distance from excavations.
 - 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.
 - Account should be taken of the bearing capacity of the ground.
- 2.28.17** 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.
- 2.28.18** Contractors and their employees shall ensure that crane loads are not carried over the heads of any workmen.
- 2.28.19** Guide ropes to be used to prevent loads from swinging.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 39 of 56 |

Record keeping

- Record books and test certificates of lifting machined and tackle should be kept on the safety file.
- A copy of the risk assessment should be kept on the safety file.
- A certificate of approval 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.

2.29 FIRE SAFETY

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

1 Fire Safety Plan

The fire safety plan shall include:

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

2 Fire Alarm Shut Downs

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

3 Alternate Procedures

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

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 40 of 56 |

a) 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 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.

b) Unoccupied Buildings

In the event that fire systems are removed from service alternate warning devices will be used with procedures posted at each entrance, stating authorize personnel only, how to activate the warning device(s), call Fire Department, call Security. Fire Panels must be tagged as to what has been removed from service. Fire Watch personnel will patrol the affected area(s) and check fire panel(s) once per hour.

In the event 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 will patrol the affected area(s) and check the fire panel(s) once per hour.

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.

5 Eskom Fire Safety Guidelines

a) Fire Alarms

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

b) Fire Watch

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

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 41 of 56 |

c) Construction Sites

- i) Fire Safety Plan: Prior to the commencement of construction or building alterations, a fire safety plan shall be prepared for the construction site.
- ii) 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.
- iii) Portable Extinguishers: suitable extinguishers must be available in the construction site and in cases of hot work, be readily available at the location.
- iv) Combustible Liquid and Flammable Liquid Storage: storage of combustible and flammable liquid in the construction site is not permitted unless stored in approved flammable cabinets or outdoors away from the buildings.
- v) Fire Watch: fire watch (with tours at intervals of not more than one hour apart) shall be provided when a portion of a building is occupied while construction operations are taking place with provision for the fire watch to sound the alarm, notify the Fire Department and Eskom Security. (Except where the building and construction sites are provided with a Fire Alarm System or similar equipment acceptable to the Manager, Occupational Health and Safety).
- vi) Smoking Restrictions: Smoking is not permitted indoors, at entrances to buildings or near air intake systems as per Eskom Policy and legislation requirements.

6 Fire Protection System Shutdown Procedures

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 with confirmation of schedule within 2 days of the original notice. Managers' 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, 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:

- a) Upon request, electrical staff will verify in person the work to be done, contact the monitoring station if necessary, isolate the required fire protection system, place a information tag on the fire alarm panel and inform the electrical foreman that the system has been isolated;
- b) Electrical Foreman will notify Security Supervisor to begin fire watch;
- c) Security Staff or other reliable person will patrol the affected area(s) at least once per hour;
- d) 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;
- e) Electrical Foreman will notify Security Supervisor to end fire watch.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 42 of 56 |

2.30 WORK AT ELEVATED POSITIONS AND ROOF WORK

2.30.1 Whenever persons are required to work in an elevated position, a fall protection plan (which includes fall prevention) will be compiled, implemented and reviewed and every possible and practicable means shall be adopted to provide such persons with effective training and safeguards.

Note: All persons required to work in elevated positions shall be declared medically fit.

2.30.2 The Contractors shall stop all persons working in elevated positions during periods of inclement weather or if the possibility of lightning strikes is present.

2.30.3 Safety belts are not allowed to be used in Eskom. An appropriate full body safety harness will be worn when working at an elevation of 2 (two) meters or more.

2.30.4 Working on elevated positions shall only be carried out under the supervision of a competent person.

2.30.5 Lifelines are to be used with safety harnesses (as per Risk Assessment) when doing steel erection and other similar activities such that persons are not exposed to danger, by continuously attaching and detaching the lanyards from the structure.

2.30.6 Provision must be made to prevent objects and or material from falling from elevated areas and the protection of persons working below.

2.30.7 A risk assessment covering all work at elevated heights is to be carried out and appropriate mitigation measures to be put in place.

- All tools in elevated positions must be attached to lanyards, attached to person or structure or effectively prevented from falling.
- Equipment in elevated positions must be tied back to the structure.
- Loose items in elevated positions. E.g. Bolts and nuts to be kept in tins or similar robust containers and not in paper boxes.
- When working at elevated heights, nets and/or other suitable material should be used catch falling debris and sparks directly below where the task is being performed.

2.30.8 Fall protection includes:

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

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

All fall protection equipment shall comply with SANS Standards and other recognised international standards.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 43 of 56 |

2.30.10 The Principal Contractor and/or his sub-contractor shall compile a fall protection equipment, inspection and testing and maintenance procedure.

2.30.11 No safety belts are allowed.

Scaffolding

- All scaffolding used shall comply with the OHS Act and Regulations as well as SANS 10085.
- Scaffolding erectors: Training is specified in SANS 10085.
- Scaffolding access ladders shall form part of the scaffold structure and not the ladder register.

Ladders (Portable)

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

2.31 BARRICADING (GUARDING OF EXCAVATIONS, TRENCHES AND FLOOR OPENINGS)

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

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

- Name and contact detail of person and Contractor Company that is responsible for the barricading shall be posted on the actual barricading.
- All barricading shall be of the rigid type.
- All openings and edges must be barricaded with solid barricading to withstand an impact of at least 100 kg.
- Only solid (scaffolding or stand alone) barricading with Orange “Snow Netting” will be allowed.
- Balards (containers filled with liquid) can be used as solid barricading (exempted for use inside power plant units).
- 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.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 44 of 56 |

2.32 PERMIT TO WORK

Contractors must adhere to the approved Eskom Permit to Work System to control identified high risk activities. There will be only **one Permit to Work system (Eskom)** on the construction site.

If the type of work requires that contractors must be trained, competence assessed and authorised in writing to perform the duties of an authorised or responsible person as contemplated in the applicable Eskom regulations e.g.

- Operating Regulations for High Voltage Systems.
- Plant Safety Regulations.
- Pulverised Fuel Firing regulations.
- Hot work.
- Radiation.

- Confined space work.

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

2.33 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 legislations, codes of practice and any specific Client/Agent procedures. In particular, the Contractor shall ensure that:

- No radio active sources may be brought onto site without prior written consent of the Client/Agent.
- Where a statutory appointment exists, he has appointed, 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 and clearly identified by the erection of suitable barriers, sirens, warning notices and / or flashing lights. Vehicles transporting 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.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 45 of 56 |

2.34 EXCAVATIONS, TRENCHES AND FLOOR OPENINGS

- 2.34.1** 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/Agent's representative.
- 2.34.2** 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, electric, etc. Overhead hazards shall be assessed and dealt with prior to commencement of work.
- 2.34.3** 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.
- 2.34.4** All excavations done by the Contractor are to be clearly demarcated and barricaded to prevent accidental access.
- 2.34.5** 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.
- 2.34.6** Barricading must be placed as close as possible to the excavation.
- 2.34.7** 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., sheetpile shoring, bracing).
- 2.34.8** 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 applies.
- 2.34.9** 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.
- 2.34.10** No material to be within 3m of the excavation edges.
- 2.34.11** All excavations must be on register and inspected daily before work commences and after inclement weather by the contractor's appointed competent person, declared safe and his findings noted in the said register. Client/Agent to review the said register on a pre-determined frequency not exceeding seven (7) days.
- 2.34.12** Whilst work is being performed in an excavation, there shall be a supervisor, at all times.
- 2.34.13** Very twelve meters there shall be an escape ladder, in all excavations.
- 2.34.14** Requirements in Construction Regulation 11 of the OHS Act, shall apply as well.
- 2.34.15** No work shall commence in an excavation unless the excavation has been declared safe by the competent person.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 46 of 56 |

2.35 BLASTING

- 2.35.1** Requirements of the Explosives Regulation of the OHS Act shall be adhered to.
- 2.35.2** 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.
- 2.35.3** 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**”. Published by the South African Bureau of Standards.
- 2.35.4** 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.
- 2.35.5** The Construction operations may necessitate that ground and rock be blasted. Prior to a blast a siren will have to be sounded. Warning flags will have to be displayed at the entrance to the area of the blast and guards will be placed at strategic points.
- 2.35.6** 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/Agent representative before charges are placed.
- 2.35.7** Only a licensed operator is allowed to blast.
- 2.35.8** For all blasting operations, a blasting mat (conveyor belts) shall be used to cover the blasting area so as to reduce the amount of flying debris.

2.36 WORKING NEAR PUBLIC ROADS

The Principal Contractor, his employees and subcontractors 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 preventing unauthorised access.

Road traffic warning signs shall be placed well ahead of the work area.

2.37 WORK STOPPAGE

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

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

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 47 of 56 |

- Unsafe acts/behaviours;
- Unsafe conditions;

The process to be followed is:

- The relevant activity must be stopped;

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

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

- The Eskom Site/Project Manager shall review the affected parts/sections of the SHE specification with the purpose of providing sufficient SHE information to the principal contractor.
- The principal contractor shall then revise the relevant sections in the SHE plan to accommodate the changes.
- The Eskom Site/project manager must ensure that the revised provisions in the SHE plan are adequate and must approve it before the work activity is commenced.

Before the workforce is allowed back in the area, Principal Contractor and 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(e) of the OHS Act.

2.38 SHE AUDITS

Eskom reserves the right to conduct unannounced audits on contractors

2.38.1 Compliance and Approval of Contractor SHE Plan

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

2.38.2 Contractor SHE Performance Evaluation

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

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 48 of 56 |

2.38.3 Internal Audits

Contractors are required to conduct internal audits on both their employees and their sub-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.

2.38.4 Third Party Legal Compliance Verification Audits

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

2.38.5 SHE Plan Audits

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

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

2.39 INVESTIGATION OF FATALITIES / INJURIES / DISEASES / NEAR MISSES (PRINCIPAL CONTRACTOR AND SUB- CONTRACTORS)

2.39.1 The Principal Contractor shall report all incidents/accidents as required in terms of legislation including near miss incidents, first aid, medical treatment, lost time incidents (lost time injuries and fatalities); Section 24 and 25 incidents; electrical contact; major equipment damage; chemical spillage and other environmental incidents within 24 hours or before the end of the work shift.

2.39.2 The Chairperson of the ED SHE Steering Committee shall determine which employee and contractor Loss Time Incidents, Environmental Sustainability Index Incidents, Repeat Incidents and Near-miss Incidents must be presented by the relevant Business Unit Manager or the Managing Director of the contracting company. If the relevant Business Unit Manager or the Managing Director of the contracting company is not in attendance the incident presentation will not be allowed. The purpose of these presentations are to confirm that all the root causes were identified, addressed and closed out and furthermore it serves as an opportunity for sharing the lessons that were learnt from each of those incidents.

2.39.3 All fatal incidents, employee and contractor incidents, shall be reviewed by the committee within one week after the incident. Preliminary investigation information shall be shared.

2.39.4 All employee and contractor incidents that were in contravention of any one of the Enterprises Division Cardinal Rules must be presented by the relevant Business Unit Manager or the Managing Director of the contracting company.

2.39.5 If it is found that the Principal Contractor or his sub-contractor are hiding/not reporting incidents then steps (which may include disciplinary action) would be taken against the Line Management of the Principal Contractor and sub-contractor.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 49 of 56 |

- 2.39.6** A comprehensive and detailed investigation report shall be submitted to the Eskom project manager within 7 -14 days after the incident.
- 2.39.7** The Principal Contractor shall ensure that all accidents/incidents are investigated by him/her and are discussed at the Project Executive SHE committee meeting held on site.
- 2.39.8** Accidents/incidents shall be investigated and recorded in terms of the requirements of the Occupational Health and Safety Act, the National Environmental Management Act and National Water Act as applicable.
- 2.39.9** The Client/Agent shall be allowed to participate in any accident/incident investigation if the accident/incident is directly linked to any activity within the scope of the construction project.
- 2.39.10** Case studies will be compiled for all near misses, lost time incidents and fatalities.
- 2.39.11** The Principal Contractor shall keep on site/workplace a record of all accidents and incidents reported in the form of the OHS Act Annexure 1 investigation form as referenced in the OHS Act. (Incident Investigation Report)
- 2.39.12** The Principal Contractor shall provide SHE related statistics to the Client at the end of each month.
- 2.39.13** Eskom reserves the right to conduct an independent investigation in any incident.
- 2.39.14 Investigation committees**

Note that the committees below are the investigation committees that are expected as a minimum for the Principal Contractor to establish for incidents and accidents.

In addition to the Principal Contractor and his sub-contractor investigations, Eskom will also, separately, conduct its own separate investigation. The principal contractor and sub-contractor would be required to co-operate with the Eskom investigation committee. No joint investigations would be held, i.e: with Eskom and Principal Contractor.

Parties to be involved in the investigation of any of the above are as follows:

First Aid Injuries

Chairman: Supervisor of Injured Person / Principal Contractor Relevant Supervisor

Attendees:

- Principal Contractor/s and their sub-contractor/s
 - Safety representative
 - Safety Practitioner
 - Injured

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 50 of 56 |

Medical Treatment Injuries

Chairman: Principal Contractor's OHS Act Section 16(2) appointee

Attendees:

- Principal Contractor/s and / or their sub-contractor/s
 - Safety representative
 - Safety Practitioner
 - Injured (if possible)
 - Witness (if any)
 - Supervisor of the injured
- Eskom
 - Area/Discipline Project Manager

Lost Time Incidents (Lost Time Injuries, Occupational Diseases and Fatalities) :

Chairman: Principal Contractor's OHS Act Section 16(2) appointee

Attendees:

- Principal Contractor/s and / or their sub-contractor/s
 - Safety representative
 - Safety Practitioner
 - Injured (if possible)
 - Witness (if any)
 - Supervisor of the injured
 - OHS Act Section 16(2) of the injured
- Eskom
 - Eskom Project Manager
 - Eskom Area/Discipline Project Manager
 - Eskom SHE practitioner

Near miss Incidents

- Chairman: Principal Contractor/s Construction Supervisor 6.1 appointee

Attendees:

- Principal Contractor/s and / or their sub-contractor/s
 - Person/s affected by near miss
 - Health and Safety representative
 - SHE Practitioner
 - Supervisor of the area
 - Principal Contractor 's OHS Act Section 16(2) appointee
- Eskom
 - Eskom contract supervisor
 - SHE practitioner
 - Other
 - Witnesses (if any)

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 51 of 56 |

The severity and potential for injury and/or damage to plant/equipment will be determined, by at least the following people below:

- Eskom Area/Discipline Project Manager
- Person involved or owner of equipment involved
- Health and Safety representative
- SHE Practitioner

All investigation teams must include at least 1 person (from both the Eskom and Principal Contractor) that is competent in Root Cause Analysis.

Contractors shall ensure the incident/accident scene is not disturbed until after the investigation unless it is done to prevent further injury or for rescue purposes (OHS Act, Section. 24(2) applies). Investigation shall begin promptly after the incident/accident. Where applicable and with proper authorization, photographs may be taken of the scene of the incident as well as any equipment involved in the incident. The results of the investigation together with the Root Cause Analysis of the incident and the committee's recommendations for preventative action(s) shall be submitted to Eskom Project Manager, within 3 days after the incident occurred unless proof can be given that due to technical or other difficulties, more time is needed.

Contractors shall also review and analyze all incidents; to establish trends that may indicate deviations from established work standards and safe working procedures/practices. The Contractor shall take appropriate corrective action and submit report to Eskom Project Manager.

The Contractor shall investigate all incidents immediately and give the Eskom Project Manager a report within the specified time frame, which shall include:

- Date, time and place of incident;
- Description of incident;
- Root cause of incident/accident;
- Type of injury (if any);
- Medical treatment provided (if any);
- Persons involved;
- Names of witness/s;
- Corrective action to prevent recurrence (with clear deadlines and responsible persons). It is required that all corrective action is closed out within 3 months. If this is not practicable within the time frame, then it is to be submitted at a later date agreed to by the Eskom Project Manager).
- If it is found that the Principal Contractor or his sub-contractor are hiding/not reporting incidents then steps (which may include disciplinary action) would be taken against the Line Management of the Principal Contractor and sub-contractor.
- Please note that providing the Accident/incident investigation report does not exempt the Principal Contractor from providing accident reports required by Statutory Authorities, in particular, the Contractors' responsibility for reporting accidents in accordance with the requirements of the OHS Act and COID Act.
- It is essential that the Principal Contractor demonstrate that corrective action has been taken and that correction action is communicated by a predetermined means to all Contractors staff affected. All corrective actions must be closed within 3 months from the date of issuing of investigation report.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 52 of 56 |

Feedback on the status of close out of corrective actions must be communicated at the following forums:

- a) Project Executive SHE Committee Meeting
- b) Area (e.g. Boilers ; Turbines, etc.) Specific SHE Meeting
- c) Project SHE Review Meeting
- d) Progress Meeting
- e) Contractor SHE Meetings

The Contractor shall compile and implement procedure for:

- a) Reporting and investigation of incidents – This document sets out the procedures to be followed when reporting, recording and investigating incidents that occur on a construction site.
- b) Workplace Injury and Disease Recording – The purpose of this document should be a guide to the Principal contractor on how to accurately evaluate, define and categorise fatalities, injuries and occupational diseases in a data format for the calculation of performance indicators for health and safety.

2.40 MONTHLY STATISTICAL REPORTS

The aim of this section is to outline all the incidents the Contractors must report to Eskom, on the 2nd of every month, name of principal contractor company and name of each sub-contractor company and each company's performance, which includes the following as a minimum –Form 75:

- Incidents: Lost time, medical; first aid, near misses reported
- Manpower numbers per principal contractor and sub-contractor company
- Actual man-hours worked
- Status on incidents investigated and recommendations closed out
- Status on audits conducted and findings closed out.

2.41 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 proceed 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 sub-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 sub-contractor are included in the SHE Plan to be submitted for approval.

| | | | |
|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 53 of 56 |

The plan shall demonstrate management's commitment to SHE and shall, as a minimum include the following elements:

- The Principal Contractor/s and their sub-contractor/s' SHE Policy.
- Indication of Competent supervision on site (CV's to be included).
- Appointed persons competencies. (e.g. Scaffold erectors, riggers etc.)
- Duties and safety responsibilities of all appointed persons on the project.
- Selection, placement and training procedures, including induction and ongoing training in 'Basic Safe Work' and Occupational Health and Safety training for newly hired or promoted supervisors.
- Occupational Health and Safety communications and meetings, including daily safe task instructions and project safety meetings.
- Assessment of sub-contractors, including requirements for safety plans.
- Safety awareness promotions.
- Nomination of personnel to carry out safety inspections. The task may be shared with other duties and provided within the resources of individual gangs and may be rotated.
- Contractor senior management involvement with Company's staff in consultative processes and daily management Safety walkabouts.
- Occupational Health and Safety Workplace Environment, including provision for monitoring employee exposures to noise, dust, etc.
- Rules and regulations including safety procedures the Contractor has in place for recurring work activities.
- Personal protective equipment rules.
- Control of dangerous and hazardous substances.
- System of hazard identification and risk control, such as Risk assessments, Daily Safe Task Instructions and communication.
- Design control (if applicable).
- Audits to ensure compliance with safety plans.
- Daily site safety inspections and audits. The auditing role may be shared with other duties or provided within the resources of individual groups. The role may be rotated.
- Inspection of plant, tools and equipment prior to introduction to site and regularly thereafter. .
- Accident incident reporting, recording, investigation and analysis, which ensure that corrective action, are taken and this action is communicated to report initiators.
- Medical and first aid arrangements.
- Evacuation and emergency planning.
- Rehabilitation procedures that encourage an early return to work.
- Substance abuse programme.
- Record keeping, including details of what is kept and for how long.
- Detailed financial allocation for health and safety.
- Monitoring mechanisms.
- Personal Protective equipment arrangements.
- Site meetings arrangements.
- Audits arrangements.
- Selection, procurement and management of other contractors.
- Maintenance arrangements of machinery and equipment.
- Designer interaction arrangements.
- Workers welfare facilities.
- Induction and toolbox talk's arrangements.
- Training arrangements.
- Letter of good standing with a compensation insurer.
- Performance review and improvements on the project.
- Past health and safety performance statistics of the company (at least two years).

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/Agent Representative.

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|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 54 of 56 |

2.42 OMISSIONS FROM THIS SHE SPECIFICATION

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

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

2.43 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 sub-contractors 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 at the end of the Principal Contractor's contract shall be handed over to the Client/Agent.

2.44 PRINCIPAL CONTRACTOR'S ACCOUNTABILITIES FOR THEIR SUB-CONTRACTORS

2.44.1 In the event that the Principal Contractor needs to introduce a new sub-contractor, the Principal Contractor must first inform the Client/Agent's and obtain his approval. Such sub-contractors must, in every respect, meet the Client's/Agent's SHE requirements.

2.44.2 Should the principal contractor appoint a subcontractor, the principal contractor would then have the same role and responsibility in relation to the subcontractors, in a similar way as the Client/Agent has in relation to the principal contractor.

2.44.3 The Principal Contractor is directly accountable for the actions of his sub-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.

2.44.4 The Principal Contractor shall ensure that the sub-contractors appointed have the necessary competencies and resources to perform the work safely.

2.44.5 The Principal Contractor shall provide any sub-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 approval.

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|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 55 of 56 |

2.44.6 The Principal Contractor **shall carry out audits** on the sub-contractor at least monthly to ensure that their SHE plan is being implemented and maintained.

Eskom may conduct audits on the Principal Contractor's sub-contractor/s. Any non-conformances/findings/observations found in these audits shall be raised and discussed with the relevant Principal Contractor (with whom the sub-contractor is contracted with).

2.44.7 The Client/Agent and/or the Principal Contractor shall stop any sub-contractor from executing construction work which poses a threat to the safety and health of persons or the environment or non-compliance to the approved SHE plan.

2.45 HOURS OF WORK

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

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

2.46 SUPPORTING DOCUMENTS

Form 22 Hazard identification Check sheet

Form 75 Contractor Monthly Statistical Report

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|---------------|-------------------------------|--------------------|-----------------|
| Title: | SHE SPECIFICATION FORM | Unique Identifier: | 74 |
| | | Document Type: | NFM |
| | | Revision: | 0 |
| | | Page: | 56 of 56 |

ANNEXURE A

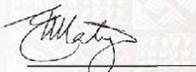
Safety, Health and Environment (SHE) Policy

Guiding principles by which we operate

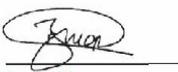
- We are committed to safety, health and environmental excellence and will conduct business with respect and care for people and the environment and, in so doing, will ensure that adequate resources are available for SHE management.
- We will ensure that SHE is an integral part of our operations and that no operating condition, or urgency of service, can justify endangering the life of anyone or cause injury or damage to the environment.

Compliance to this policy and applicable regulations shall be the responsibility of every employee and contractor.

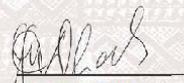

Thulani S Gcabashe
 Chief Executive


Ehud Matya
 Managing Director
 Generation

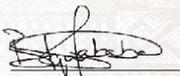

Duncan Mbonzana
 Managing Director
 Corporate


Jacob Maroga
 Managing Director
 Transmission


Mongezi Ntsokolo
 Managing Director
 Distribution


Johnny Dladla
 Managing Director
 Key Sales & Customer Service


Steve Lennon
 Managing Director
 Resources & Strategy


Bongani Nqwababa
 Finance Director


Brian Dames
 Managing Director
 Enterprises


Mpho Letlape
 Managing Director
 Human Resources



With Energy, Anything is Possible