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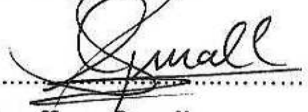
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## CONTENTS

	Page
<b>1. INTRODUCTION .....</b>	<b>4</b>
<b>2. SUPPORTING CLAUSES.....</b>	<b>4</b>
2.1 SCOPE .....	4
2.1.1 Purpose .....	4
2.1.2 Applicability.....	4
2.2 NORMATIVE/INFORMATIVE REFERENCES.....	4
2.2.1 Normative .....	4
2.2.2 Informative.....	6
2.3 DEFINITIONS.....	6
2.3.1 Classification .....	6
2.4 ABBREVIATIONS.....	6
2.5 ROLES AND RESPONSIBILITIES.....	7
2.6 PROCESS FOR MONITORING.....	7
2.7 RELATED/SUPPORTING DOCUMENTS.....	7
<b>3. DOCUMENT CONTENT.....</b>	<b>8</b>
3.1 PROJECT SCOPE OF WORK DETAILS.....	8
3.2 SHE PLAN REQUIREMENTS FOR CONTRACTORS .....	8
3.3 MANAGEMENT RESPONSIBILITY AND COMMITMENT .....	8
3.4 MANAGEMENT SYSTEMS SHE POLICY.....	9
3.5 TRAINING COMPETENCE AND AWARENESS.....	10
3.6 STATUTORY APPOINTMENTS, QUALIFICATIONS AND COMPETENCY.....	10
3.7 HAZARD IDENTIFICATION, RISK ASSESSMENTS AND DETERMINING CONTROLS .....	15
3.7.1 Method Statement or Written Safe Work Procedures.....	16
3.7.2 High Risk Activities.....	17
3.8 LEGAL AND OTHER REQUIREMENTS.....	17
3.9 SITE ESTABLISHMENT AND FACILITIES.....	18
3.9.1 Site Access Control and Traffic Management on Site .....	18
3.9.2 Project and Site Rules (Zero Harm to People and the Environment) .....	19
3.10 CONSTRUCTION VEHICLES, MOBILE PLANT MAINTENANCE AND TRANSPORTATION OF EMPLOYEES .....	20
3.11 COMMERCIAL TRANSPORT OF GOODS (FREE ISSUE MATERIAL) .....	22
3.12 OCCUPATIONAL HEALTH MANAGEMENT .....	23
3.12.1 Workers Compensation.....	23
3.12.2 Employee Health and Wellness Programme .....	23
3.12.3 Medical Surveillance Programme.....	23
3.12.4 Employee Assistance Programs (EAP).....	24
3.12.5 Emergency Care .....	24
3.12.6 First Aid Boxes .....	25
3.12.7 Occupational Hygiene .....	26
3.12.8 Asbestos Control Management;.....	26
3.12.9 Management of Alcohol and Substance Abuse .....	27
3.12.10 Welfare .....	27
3.13 EMERGENCY PREPAREDNESS AND RESPONSE.....	28
3.14 SHE COMMUNICATION FORUMS .....	29
3.14.1 Progress Meeting .....	30
3.14.2 Contractor SHE Meetings.....	30
3.14.3 Pre-Job Brief Meeting.....	31
3.15 INCIDENT MANAGEMENT.....	31
3.15.1 Investigation committees.....	33
3.16 MONTHLY STATISTICAL REPORTS AND SHE PERFORMANCES.....	36

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3.17 ENVIRONMENTAL MANAGEMENT .....	36
3.17.1 Aspect and Impact Register .....	36
3.17.2 Fire Hazard .....	36
3.17.3 Waste .....	37
3.17.4 Material Requirement .....	37
3.17.5 Dust and Noise .....	37
3.17.6 Environmental Incidents .....	38
3.17.7 Water .....	38
3.17.8 Signing Off of the Contract .....	38
3.18 OPERATIONAL CONTROL .....	39
3.18.1 Housekeeping .....	39
3.18.2 Symbolic Safety Signage .....	40
3.18.3 Hazardous Materials/Chemicals Management .....	40
3.18.4 Machinery, Tools and Equipment .....	44
3.18.5 Hand Tools and Pneumatic Tools .....	45
3.18.6 Boilers, Pressurised Systems and Vessels Under Pressure .....	46
3.18.7 Explosive Powered Tools .....	46
3.18.8 Lifting Machines and Lifting Tackle .....	47
3.18.9 Working at Heights .....	48
3.18.10 Excavations, Trenches and Floor Openings .....	50
3.18.11 Barricading (Guarding Of Excavations, Trenches and Floor Openings) .....	50
3.18.12 Blasting .....	51
3.18.13 Working Near Public Roads .....	52
3.18.14 Fire Safety .....	52
3.18.15 Radiography, Ultrasonic, Non-Destructive Testing (NDT) .....	55
3.19 PERMIT TO WORK .....	56
3.20 PERSONAL PROTECTIVE EQUIPMENT (PPE) .....	56
3.21 SHE MONITORING AND MEASUREMENT .....	57
3.21.1 Compliance and Approval of Contractor SHE Plan .....	57
3.21.2 Contractor SHE Performance Evaluation .....	58
3.21.3 Internal Audits .....	58
3.21.4 Third Party Legal Compliance Verification Audits .....	58
3.21.5 SHE Plan Audits .....	58
3.22 NON-COMPLIANCE TO MANDATORY SHE SPECIFICATION & PDPMAN-FM-074 .....	58
3.23 WORK STOPPAGE DUE TO NON-COMPLIANCE OR PLANNED WORK STOPPAGE .....	59
3.24 OMISSIONS FROM THE MANDATORY SHE SPECIFICATION & PDPMAN-FM-074 .....	60
<b>4. AUTHORIZATION .....</b>	<b>60</b>
<b>5. REVISIONS .....</b>	<b>61</b>
<b>6. DEVELOPMENT TEAM .....</b>	<b>61</b>
<b>7. ACKNOWLEDGEMENTS .....</b>	<b>61</b>

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## **1. INTRODUCTION**

The Mandatory SHE specifications are Eskom's minimum requirements to be met by Contractors and Suppliers during Refurbishment and Construction Work. The Contractor shall **develop a SHE plan and prepare a SHE file** which meets these requirements as well as all the relevant applicable legislation. The Contractor shall remain accountable for the quality and the execution of his health and safety programme for his employees and sub-contractor employees.

The Power Delivery Projects (PDP) business plan requires that assurance is provided to the Transmission Grids Management as well as to the shareholders that all the activities executed within PDP meets the technical specifications; documentation requirements as well as any statutory and legal requirements.

## **2. SUPPORTING CLAUSES**

### **2.1 SCOPE**

The scope of this document is to ensure that management systems within PDP form part of all the functional areas.

#### **2.1.1 Purpose**

The aim and objective of this standard is to support and enable management and employees to proactively protect the organisation, its people, the natural environment, assets, resources and profits against the adverse consequences of exposure to existing and potential risks, by reducing the frequency of occurrence and the consequences of exposure.

#### **2.1.2 Applicability**

This standard is applicable to all Contractors and Suppliers and all the activities and processes carried out for and on behalf of Power Delivery Projects that affect the services rendered.

## **2.2 NORMATIVE/INFORMATIVE REFERENCES**

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

### **2.2.1 Normative**

Hazardous Substances Act, Act 5 of 1973

Occupational Health and Safety Act, Act 85 of 1993

Mine Health and Safety Act, Act 29 of 1996

National Environmental Management Act, Act 107 of 1998

ISO 9001: 2008, Quality Management Systems – Requirements

ISO 14001: 2004, Environmental Management Systems Specification with guidance for use

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BS OHSAS 18001: 2007, Occupational Health and Safety Management Systems - Requirements

32-94, Safety, Health and Environment (SHE) Policy

32-95, Effective Management of SHE related Incidents

32-136, Construction Safety Health, and Environmental Management

32-282, Medical Surveillance Procedure

32-296, Integrated SHE Organisation; Roles; and Responsibilities and statutory appointments

32-345, Eskom Vehicle Safety Specification

32-407, Behavioural Safety Observations

32-418, Working at Heights

32-726, Mandatory S.H.E. Requirements for the Eskom Procurement and Supply Chain Management Process

39-3, Minimum Mandatory SHEQ training standard

39-4, Integrated Risk Management process and reporting standard

39-7, Reporting, recording, investigating, costing, and the following up of incidents/accidents

39-8, SHERQ career development programme

39-10, Management of substance abuse procedure

39-11, Health and Safety Representatives and Committee Systems

39-12, Employees right to refuse to work on the grounds of SHEQ concerns

39-13, The process for hazard identification, risk evaluation and risk control

39-14, Environmental Management System related requirements

39-15, Reporting on Environmental expenditure

39-19, Control of non-conforming product/service, corrective and preventative procedure

39-21, Management Review Procedure

39-28, Emergency Preparedness and Response

39-29, Framework for developing a SHE Specification for construction work that is specific to: The type of Project or Site

39-33, Management of SHEQ, Technical and Related Audits

39-35, Rewards and Recognition for Safety, Health and Environmental (SHE) Achievements

39-53, Identification and access to legal and other requirements

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- 39-54, Standard for selection, use and maintenance of personal protective equipment
- 39-55, Monitoring and measurement of Environmental performance
- 39-78, SHE Communications Standard
- 39-90 Contractor Safety, Health and Environmental (SHE) File Guideline
- 39-115, ED SHE Roles and Responsibilities Procedure
- 39-123, Monitoring and Measurement of SHE Performance
- 39-137, ED SHE Audit Committee Terms of Reference
- 39- 150, Functions and Responsibilities of the ED Specialist Incident Investigation Team
- 39-157, Enterprises Division Safety, Health and Environmental (SHE) Strategic Plan 2009 -2013
- 39-159, Integrated Risk Management Plan for Enterprises Division and Eskom Enterprises (Pty) Ltd.
- 39-161, OHS Act Inspectorate Procedure
- 39-162, Change Management Procedure
- 39-163, Respiratory Protection Programme Procedure

## **2.2.2 Informative**

Enterprises Division Safety, Health and Environmental (SHE) Strategic Plan 2009 -2013

## **2.3 DEFINITIONS**

**Management Representative:** A member of PDP Management Committee who has been appointed to carry out the duties in accordance with the following clauses 4.4.1 BS OHSAS 18001: 2007, clause 5.5.2 of ISO 9001: 2008 and clause 4.1.2.3 of ISO 14001: 2004.

### **2.3.1 Classification**

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

## **2.4 ABBREVIATIONS**

<b>Abbreviation</b>	<b>Description</b>
<b>PDP:</b>	Power Delivery Projects
<b>GM:</b>	General Manager
<b>ISO:</b>	International Standard of Organisation
<b>SHEQ:</b>	Safety, Health, Environment and Quality

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## **2.5 ROLES AND RESPONSIBILITIES**

The General Manager shall be responsible for:

- Ensuring that the management systems are developed implemented and continuously improved.
- Ensuring that the requirements of this standard are implemented.
- Ensuring that the management systems are an integral part of PDP activities.
- Reviewing the management systems during a defined interval periods.

The SHEQ Manager PDP shall be responsible for:

- Assisting the GM in terms of developing, implementing and continuously improving the management systems.
- Ensuring that all the Grids partake in the development of this document.
- Assessing the level of conformance of this document by the Grids.
- Advising on the areas for improvement regarding the implementation of this document.

## **2.6 PROCESS FOR MONITORING**

Detailed monitoring requirements are through PDP Management meetings, Project Review Management meetings, PDP SHEQ Management Review Committee meetings, PDP SHEQ Department meetings & SHEQ Managers meetings, Site Progress Meeting.

## **2.7 RELATED/SUPPORTING DOCUMENTS**

Additional standards, procedures and guidelines shall be used in support of the aims and objectives of this Standard.

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### **3. DOCUMENT CONTENT**

#### **3.1 PROJECT SCOPE OF WORK DETAILS**

Contractors shall prepare a site specific SHE Plan according to the project scope of work. The following information shall be noted clearly by the Contractor:

- Location: Address and identification of specific structures- reference to the contracts/other contractual documentation (works information) where the exact detail is contained.
- 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.
- Programme details: (For Engineering, Procurement and Construction Contracts Only): For Evaluation and Assessment of the Cycle
- SHE Plan & SHE File 1 month prior to commencement of work:
- Anticipated date for the commencement of work on site.
- Project duration or completion date.
- Schematic layout of project site including site plans/services and surrounding land uses or any sensitive features.

#### **3.2 SHE PLAN REQUIREMENTS FOR CONTRACTORS**

Contractors shall develop a suitable and sufficient SHE plan, submitted with tender documents, inline with the Client's SHE specification and legal requirements. The SHE 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.

A final accepted SHE plan shall be signed and approved. The Contractor shall not commence work on site until the SHE plan has been approved.

When a Contractor intends appointing a sub-contractor, the Contractor shall ensure that the SHE Plan is based on the Client's SHE Specification. The Contractor shall ensure that the activities of the sub-contractor are included in the SHE Plan to be submitted for approval.

#### **3.3 MANAGEMENT RESPONSIBILITY AND COMMITMENT**

The Contractor is responsible for adequately informing his employees and sub-contractors of all relevant information of the Eskom issued SHE specifications, SHE requirements including the statutory and/or legal requirements and the Contractors SHE plan.

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.

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- Working in a manner that does not endanger them or cause harm to others.
- Keeping their work area tidy.
- Reporting all incidents/accidents and near misses.
- Protecting fellow workers from injury.
- Reporting unsafe acts and unsafe conditions.
- Reporting any situation that may become dangerous.
- Carrying out lawful orders and obeying health and safety rules.

Every employee must undergo site induction provided by the Client before commencement of the contracted work. The site induction shall include the cardinal rules and acknowledgement thereof. Only once this induction has been received, will each employee receive a site access permit.

It must be highlighted to all employees, that anyone who becomes aware of any person disregarding a 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 Contractor Supervisor immediately.

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

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

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

Entering or leaving the Site may only be done via the official designated walkways, whether at substations or remote sites. Walk, do not run, and be alert for motor vehicle traffic and mobile equipment.

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

If any of the Contractor's employees or his sub-contractor employees has transgressed any of the requirements of the SHE Specification, including Regulatory and/or Eskom procedures and standards, SHE plan or site rules, then the employee will be removed from site and his/her site access revoked. The Contractor must follow a process of disciplinary action which shall include re-training/inducting the employee (at the cost of the 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.

### **3.4 MANAGEMENT SYSTEMS SHE POLICY**

The Contractor and the sub-contractor companies shall each have a SHE Policy authorised by their Chief Executive or Managing Director (OHS Act Section 16(1) appointee) that clearly states overall SHE objectives and commitment to improving Safety, Health and Environment performance. This should be in line with the ILO OHS Guidance (Make reference to the guideline) and OHSAS 18001, ISO14001.

Eskom SHE policy document shall be read and understood by the Contractors and subcontractors on site.

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### **3.5 TRAINING COMPETENCE AND AWARENESS**

It is the process of ensuring that all the people working for or on behalf of the Contractor are competent on the basis of appropriate education, training, skills and experience for the tasks assigned to them.

The Contractor shall:

- Evaluate the effectiveness of the actions taken to ensure competence;
- Ensure that employees are aware of the relevance and importance of their activities and how they contribute to the achievement of the objectives.

People's behaviour is critical to the success of any SHE management programme. An effective, systematic approach to recruitment and the development of personnel is vital to ensuring that staff is physically capable and competent to perform the duties required of them.

The Contractor shall identify training requirements of employees whose work may have a significant impact on their health and safety or that might create a significant impact upon the environment and has ensured that these employees will receive appropriate training. A Training matrix shall be used as a mechanism to manage and control the training of the individuals within the company.

Awareness training shall be identified which is required for all employees on the project on the SHE Policy, the SHE Plan, the Occupational Health and Safety programmes and procedures and the EMS programmes and procedures.

It is the responsibility of the Contractor to develop and implement a site specific SHE Induction programme, a job specific induction programme and a general employee SHE awareness programme, to develop awareness amongst employees of the generic SHEQ issues associated with scope of work and the specific environmental issues in question.

Visitors and suppliers to the site shall be required to undergo and comply with Contractors' site-specific safety induction requirement prior to being allowed access to site. All visitors shall sign the attendance register. All visitors and suppliers shall remain in the care of the host who understand the scope of work and associated risks. No visitors or suppliers are permitted to undertake any construction work, of any nature.

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.

Records of all training and qualifications of all contractor employees must be kept for the duration of the project.

### **3.6 STATUTORY APPOINTMENTS, QUALIFICATIONS AND COMPETENCY**

The 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.

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.

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All minimum required training are to be provided by accredited training service providers.

The contractor must supply proof of accreditation of the training service provider when submitting training certificates of employees to the Client.

The 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. Should an appointment become applicable during the duration of the contract work, then these appointments are to be made available)

1. OHS Act, Section 16(1) – Chief Executive Officer (only the details of Chief Executive required).
2. OHS Act, Section 16(2) – Assistant to Chief Executive Officer.
3. OHS Act, Section 17 – Health and Safety Representative.

• **Staffing**

- i. One trained Health and Safety Representative for every 20 employees or part thereof.
- ii. 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**

- i. General Health and Safety Training
  - ii. Health and Safety Representative Training
  - iii. Hazard Identification and Risk Assessment Training
  - iv. Incident Investigation and Root Cause Analysis Training
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)
    - i. Chairperson of Health and Safety Committee shall understanding Occupational Health and safety Act 85 of 1993
  5. OHS Act, GSR 3 – First Aiders

• **Staffing**

- i. Two first-aiders trained to Level 2 per team (as per OHS Act or project risk profile of scope of work) – (taking into account absence, sick leave, training, etc.)

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- **Competencies/Training**

- i. 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.
6. 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)
7. OHS Act, DMR 17(2) Goods Hoist Inspector
8. OHS Act, GAR 9 (2) Incident/Accident Investigator and Incident Investigation course.
9. OHS Act, DMR18 (11) Lifting Machinery Operator (Appointment or Permit)
10. OHS Act, DMR18 (5) Lifting Machinery Inspector
11. OHS Act, DMR 18 (10) (e) Lifting Tackle Inspector
12. OHS Act, EMR 9 Portable Electrical Equipment Inspector
13. OHS Act, VUP 10 Portable Gas Container Inspector (Pressure Equipment Regs)
14. OHS Act, VUP 13 (1) (b) Pressure Vessels Inspector (Pressure Equipment Regs)
15. OHS Act, Lifts, Escalators and Passenger Regulations (6) (1) – Competent person to examine and maintain lift, escalator or passenger conveyer
16. OHS Act, HCS Regulations 3 (3) Hazardous Chemical Substances Co-coordinator and HCS Regulations course
17. OHS Act, Asbestos Regulations 21, Person registered as an Asbestos Contractor (Asbestos AIA) by the Department of Labour
18. OHS Act, CR 4 (1) Appointment of the Contractor by the Eskom Client/Agent (to be done when contract is awarded)
19. OHS Act, CR 5 (3) (b) Sub-Contractor Appointment by the Contractor (If appointing Sub-Contractors)
20. OHS Act, CR 6 (1) Construction Supervisor (appointed by the Contractor OHS Act Section 16(2) appointee)

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### **Qualifications**

- 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
- An accredited supervisors safety course, plus;
- Minimum 5 Years experience in Construction Management

All requirements must be met prior to commencement of work. No exemption will be granted.

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

### **Qualifications**

- 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
- An accredited supervisors safety course, plus;
- Minimum 3 Years experience in Construction Management

22. OHS Act, CR 6(6) - Construction Health and Safety Officer

### **Staffing**

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

### **Qualifications**

- National Diploma in Safety Management, Environmental Health or Environmental Management plus minimum 3 years experience in Construction Management.

The following alternative qualifications shall be considered plus minimum 3 years experience: Civil Engineering, Electrical Engineering, Mechanical Engineering or Construction Management plus registration with a Professional Body e.g. IOSM plus the following short courses:

- A recognised safety certification (minimum: of 2 weeks training) (e.g. SAMTRAC / Modern SHEQ Management course)
- OHS Act and Regulations (latest version of the Act and regulations)
- COID Act (latest version of the Act)

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- 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
- Knowledge of relevant SANS codes

The Contractor shall appoint a suitably qualified experienced person to ensure the Occupational Health and Safety comply with the SHE specification requirements, SHE Plan, Regulatory and Eskom procedures and standards.

23. OHS Act, CR 7 (1) Person to Compile Risk Assessments and HIRA Course

24. OHS Act, CR 8 (1) (a) Competent person to Compile Fall Protection Plan (FPP). Working at heights course coupled with experience in compiling FPP.

25. OHS Act, CR 10 (a) Person to supervise Formwork and Support Work

26. OHS Act, CR 11(1) Person to supervise Excavation Work

27. OHS Act, CR 12 (1) Demolition Work Supervisor

28. OHS Act, CR 12 (11) Responsible Person in the Use of Explosives and development of the method statements

29. OHS Act, CR 15 (1) Suspended Platform Supervisor

30. OHS Act, CR 15(8)I Competent Person to Conduct Performance Test of Suspended Platforms

31. OHS Act, CR 14 (2) Scaffolding Supervisor and Approved Scaffolding course plus experience in erecting and working with scaffold

32. OHS Act, CR 17(1) Material Hoist Inspector

33. OHS Act, CR 18(1) Batch Plant Supervisor

34. OHS Act, CR 19 (2) (b) Explosive Powered Tool Inspector

35. OHS Act, CR 19 (2 ) (g) (i) Person responsible for issuing and collection of Explosive Powered Tools cartridges and nails or studs

36. OHS Act, CR 21(1) (j) Construction Vehicle and Mobile Plant Inspector

37. OHS Act, CR 22 (e) Temporary Electrical Installation Controller

**CONTROLLED DISCLOSURE**

38. OHS Act, CR 26 (a) Stacking and Storage Supervisor, and Stacking Regulations
39. OHS Act, CR 27 (h) Fire Fighting Equipment Inspector and Basic fire fighting course
40. Eskom requirement Emergency Planning Co-ordinator
41. Eskom requirement Fire Official
42. Section 37(2) agreement between Client/agent and Contractor
43. Environmental Officer

- **Qualifications**

National Diploma in Environmental Management or Environmental Science or Nature Conservation plus minimum 3 years experience in Construction Management; supported by:

Following short courses:

- Environmental legislation
- Waste Management
- Environmental Auditing and risk assessment
- Implementing Environmental Management Systems (ISO 14001)
- Handling & Storage of Hazardous Substances

For short term contracts (+/- 3 months), a competent SHE Officer can be appointed to address environmental issues on site.

### **3.7 HAZARD IDENTIFICATION, RISK ASSESSMENTS AND DETERMINING CONTROLS**

Effective management of risk is essential to the effective implementation of SHE processes on projects. SHE risks shall be identified as part of the business process in order to ensure that controls are in place to prevent or reduce the impact of accidents and incidents on projects.

It should include routine and non-routine activities of all personnel having access to the workplace (including contractors, visitors and members of the public) as well as the facilities at the workplace, whether provided by the company or others. The control measures should include relevant resource requirements, time frames, monitoring and measuring criteria and the assignment of responsibilities for implementation. It also includes the documenting and updating of this information and the use of it for reviewing OH&S policy, objectives, key performance indicators and performance targets.

Requirements:

- Contractors are responsible for ensuring that risk assessment systems are in place with the necessary support to ensure that risks are identified, managed and maintained at acceptable levels.
- A systematic approach shall be used to identify and evaluate risks.
- The process shall include the identification of control measures and monitoring devices. Where necessary task based inventories of activities shall be developed which will be subject to review.

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- There shall be systems in place to ensure follow-up actions to control high risks. High risks for which existing controls are supplemented due to the level of residual risks shall be monitored to ensure that the risk is as low as reasonably practical.
- Initial risk assessment and / or review documentation shall be maintained.
- Method statements or written safe work procedures shall be documented for all high risk activities.
- Emerging risks and hazards must be managed during construction work
- Activity based risk assessments shall be conducted by an appointed and competent person and updated when changes in processes or incidents occur.

**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;
- Completed Risk Assessment must be handed to the Eskom Site/Project Manager representative for comment and approval prior to the execution of any activities;
- 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 employees 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.

Refer to the following Eskom procedure 39-13, the process for Hazard Identification, Risk Evaluation and Risk Control as a guideline.

Risk Assessment Techniques, SANS 31010:2010

**3.7.1 Method Statement or Written Safe Work Procedures**

Method statements or written safe work procedures shall be documented for all high risk activities when:

- Designing a new job or task;
- Changing a job or task;

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- 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.

Method statements or written safe work procedures shall 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.

### **3.7.2 High Risk Activities**

Contractor shall:

- Ensure that permanent and adequate on site supervision is available for the entire duration of the work that is being conducted;
- Ensure the use of safety standbys in areas of high risk activities, and activities that fall within the scope of the permit to work system;
- Provide, erect and maintain all the required barricading, lighting, flags, flashing lights, or other safety control equipment to enable operations to proceed in a safe manner;
- Maintain and define access ways, which is clear of objects or obstructions, so as to allow for emergency vehicle entry;
- Provide any temporary protective shielding required for protecting nearby operations from the construction activities;
- Provide communication and awareness

### **3.8 LEGAL AND OTHER REQUIREMENTS**

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

Should the Contractor appoint a sub-contractor, the 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 Contractor.

The Contractors shall 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).
- National Environmental Management: Waste Act (Act 59 of 2008)

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- 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).
- SHE Specification Standard as provided on tender process
- OHSAS 18001:2007, ISO 9001:2008 and ISO14001:2004 shall be used as a framework
- Eskom processes, procedures and standards

It is the duty of the Contractor and sub-contractor to ensure that they compile a site specific legal register based on all Provincial Legislation and applicable Bylaws.

### **3.9 SITE ESTABLISHMENT AND FACILITIES**

The Contractor shall establish and maintain site facilities as per the Facilities Regulations requirements and contractual agreement where necessary.

The following serve as minimum requirements, but not limited:

- Temporary Facility Layout Plan
- Dining room facilities
- Change rooms with hot and cold water
- Ablution facilities
- Site Sheds, Offices and Amenities
- Lay down and Storage
- Site Access

#### **3.9.1 Site Access Control and Traffic Management on Site**

The Contractor shall not expose visitor or suppliers to site hazards. It is, therefore, essential to take all necessary steps to control the entry and movement of non-employees into or onto a construction site or any other workplace and to ensure that persons outside the workplace are not detrimentally affected by the workplace activities.

Security measures are one of the essential requirements to prevent losses through theft, wilful damage, vandalism, sabotage etc. The security guard should be fully trained, well motivated and knowledgeable about the company and its assets. Security guards should, in addition to their normal security training, also be trained to be able to identify unsafe conditions and fire hazards and be required to report thereon.

The Contractor shall ensure that proper access control is in place and functional at all times at the construction site, by posting a notice at every entrance, prohibiting entry of unauthorised person.

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All security requirements shall be highlighted during induction as required by the Eskom security procedure or standard.

### **3.9.2 Project and Site Rules (Zero Harm to People and the Environment)**

#### **Cardinal Rules**

There are 5 cardinal rules that have been identified for the Eskom. Eskom take a stance of zero tolerance on these rules and failure to adhere will be considered a serious transgression. Non compliance to a cardinal rule shall lead to serious disciplinary action, which may include dismissal.

The rules are as follow:

	<b>Eskom Cardinal Rules</b>
<b>RULE</b>	<b>DESCRIPTION OF RULE</b>
Rule 1	Open, Isolate, test, earth, bond and / or insulate before touch
Rule 2	Hook up at heights
Rule 3	Buckle up
Rule 4	Be Sober( Alcohol tests shall be conducted randomly)
Rule 5	Ensure that you have a permit

The Contractor shall develop a programme on how to effectively implement the Cardinal Rules.

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

The minimum required PPE on any construction site:

- Hard hat;
- High visibility vest / overalls with a visibility imprint at the back or front;
- 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.

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### **Cellular Phones**

- Do not use cellular phones in areas where cell phone usage is prohibited
- Do not use cellular phones whilst driving or climbing or working at heights.

### **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.

## **3.10 CONSTRUCTION VEHICLES, MOBILE PLANT MAINTENANCE AND TRANSPORTATION OF EMPLOYEES**

The Contractor shall implement a site traffic plan (circular movement) to ensure the safe movement of all construction related mobile plant.

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 valid driver's licence, valid for the class of vehicle and appointed as per the CR 21**. The driver's license shall be kept by the person so authorised and shall produce such card on request.

All drivers of construction vehicles and mobile plant shall have medical fitness certificates, received appropriate training, certified been competent and authorised to operate such plant.

Contractors shall implement pedestrian and vehicle routings as part of the site traffic plan to demonstrate the route employees may proceed when coming on or going off shift.

The speed limit within the bounds of the construction site, including gravel road and/or private land is 40 km/h.

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

It is the responsibility of the driver to ensure:

- He/she and their passengers wear seat belts whilst the vehicle is in motion.
- Not to operate a vehicle if a hazard is observed e.g. brakes, steering, air pressure loss, etc.
- Comply with all safety, direction and speed (traffic) signs.
- Ensure that vehicle loads are properly secured and loaded onto vehicles.
- Ensure that vehicles are not overloaded.
- Report any defect to the supervisor and mechanic before the end of the shift.

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; SANS 3471:2009, IS 3471:2008, Laboratory Tests and Performance requirements
- 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; SANS 6683:2003 / ISO 6683:1987
- Construction vehicles to be fitted with **roll over structures/protection** as per SANS standards;
- The driver and all passengers to be seated with seatbelts fastened whilst the vehicle is in motion, see National Road Traffic Act.

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

- Ride on the back of elevators, cranes or other mobile plant equipment.
- Leave vehicles unattended with the engine running, or with the key left in the ignition
- Park vehicles in unauthorised zones/areas.

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

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

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

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A current maintenance logbook is required for all construction vehicles and mobile plant, and shall be available for inspection at any time. The logbook shall be located in the cabin of the construction vehicle, mobile plant and workshop.

Contractor is to ensure that visibility (e.g.: switching on of lights, reflectors, barricades equipped with lights, etc.) is enhanced on all Construction Vehicles and Mobile plants in order to identify the location of the vehicles or plant.

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

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

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

All servicing and repairs must be carried out by the Contractor in a designated area. If a breakdown occurred in a remote area the Contractor shall ensure that it is towed to a designated area and the safety of employees guaranteed.

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

Every mobile machine whose vision is impaired when reversing must be equipped with a electrically operated acoustic signalling device and/or a reversing alarm, which sounds, when the machine is reversing.

This includes trucks, cranes, loaders, etc.

Operators / driver 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.

**The use of a spotter is mandatory if the above is not possible.**

### **3.11 COMMERCIAL TRANSPORT OF GOODS (FREE ISSUE MATERIAL)**

The Client shall ensure safe handling, loading, securing, transporting and unloading of goods and equipment by motor carriers on contract to Power Delivery Projects.

The safety and quality of practices relating to handling, loading, securing, transporting and unloading of goods and equipment will be verified through the use of a Commercial Transport of Goods Check Sheet – PDPMAN-CS-002.

Vehicles, drivers, mobile plant operators and lifting equipment that fail to meet the minimum requirement of the Commercial Transport of Goods Check Sheet – PDPMAN-CS-002 shall be returned to home base. In case of PDP delivery points, non-conformances will result in delays to off-loading until the defective item is corrected. Cost incurred as a result of such delays will be for the account of the contractor.

#### **CONTROLLED DISCLOSURE**

Eskom representatives on site must not issue loading, load securement or unloading instructions / advice to truck operators as operators would have been adequately trained in this regard. It is the responsibility of the project managers to ensure that the site officials / supervisors / site managers are aware of this request.

Where the goods being scheduled for the transportation are unfamiliar to the transporter, advance loading instructions shall be communicated by the Transport Officer to the motor carrier for them to prepare their driver / operators to safely and competently handle and transport material, plant and equipment.

### **3.12 OCCUPATIONAL HEALTH MANAGEMENT**

It is the process of identifying, quantifying and qualifying Occupational Health Risks and the identification and implementation of the required control measures.

An effective health hazard control programme will ensure that all potential health hazards in a work environment are recognised, evaluated and controlled.

Requirements:

- All activities shall be subjected to an assessment for potential damage to health to ensure that the risk from the occupational health and industrial hygiene hazards are kept as low as reasonably practical.
- Activities undertaken shall be reviewed to ensure that health hazards are identified and evaluated and that effective controls are in place.
- Where risks are high or where legally required, occupational health and hygiene monitoring shall be in place. This system shall be maintained.
- All staff will receive information and training to enable them to actively participate in health control measures.

#### **3.12.1 Workers Compensation**

The Contractor shall submit proof of registration and letter of good standing with the compensation fund or with a licensed compensation insurer for his company and each of his sub-contractors'. This must remain valid for the duration of the contract. The Letter of Good Standing must reflect the name of the Contractor and/or Sub-contractor Company. Contractors will not be allowed on site should the letter of compensation expire while work commences on site and no proof of application is shown to the client's representative or the relevant stakeholder e.g. Department of Labour.

#### **3.12.2 Employee Health and Wellness Programme**

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.

#### **3.12.3 Medical Surveillance Programme**

The Contractor shall 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

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certificate of fitness is also required that is relevant to the type of work (risk based) that the employee will be conducting.

The Contractor shall 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 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 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.

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

**Note:** All foreign contractors or suppliers shall undergo medicals conducted by local (South African) Occupational Health Practitioner registered by the Health Professions Council SA. No foreign medical fitness certificates will be accepted by the Client.

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

Where 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 Contractor. Details are: ICAS – Tel. No.: 0800 611 059.

### **3.12.5 Emergency Care**

ED 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.

A list of emergency numbers must be posted at phones and in every office. Contractor shall 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.

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### **3.12.6 First Aid Boxes**

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 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 Contractor shall make alternative arrangements for any medical assistance. Proof of this must be made available in the Contractors SHE Plan.

### **CONTROLLED DISCLOSURE**

### 3.12.7 Occupational Hygiene

The Contractor shall conduct Health Risk Assessments of all the Occupational Hygiene / Environmental stressors (e.g. noise, dust, illumination, HCS, heat & cold stressors, ergonomics, etc) present in the area where they operate to determine if there is any possible worker exposure. Records of all these assessments should be documented and kept up to date.

The Contractor shall monitor the extent to which their employees are exposed to the occupational hygiene stressors. These assessments shall be conducted by an Approved Inspection Authority as listed on the Department of Labour database. The findings from these assessments should be communicated to all affected parties and be reported to relevant authorities.

### 3.12.8 Asbestos Control Management;

The Contractor shall inform the Eskom Project Manager and SHEQ Department if during construction work asbestos or suspected asbestos containing material is found. Only Asbestos Approved Contractor can work on asbestos containing material. Asbestos monitoring should be carried out in accordance with MDHS 39/4 during asbestos work. Monitoring should be performed by an Approved Inspection Authority. Medical surveillance should be carried out on all people working with asbestos. The asbestos area should be demarcated and relevant signs should be posted at all entrances and exits. After the asbestos work is finished, a clearance certificate should be issued by a competent person.

<b>Hazards</b>	<b>Examples</b>	<b>Health effects</b>	<b>Method/Standard/Regulations</b>
Physical	Noise Illumination Heat/ Cold Vibration Non Ionising Radiation	Noise induced hearing loss, hypothermia, eye strain, skin burns and skin cancer	SANS10083 SANS 10114 Environmental Regulations
Chemical	Gasses/ Fumes Dusts Oils Acids	Asphyxiation, poisoning, Burns	NIOSH Methods
Biological	Viruses Bacteria Snake bites Bee stings	Diseases and infections	Biological monitoring

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Ergonomic	Workplace design Lifting and equipment Repetitive movements Awkward postures Working at heights	Back pain, joint pains,	Circular Instruction 180 "The Compensation of Work Related Upper Limb Disorder (WRULD)"
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**3.12.9 Management of Alcohol and Substance Abuse**

- No person (employees, sub-contractors, suppliers, consultants, visitors) shall report for duty or continue with his/her duties, if he/she is under the influence.
- No person may consume alcohol or drugs/controlled substances while on projects / sites.

Employees, sub-contractors, suppliers, consultants or visitors shall comply with any reasonable request to undergo random or specific alcohol testing.

Security officers at access points shall:

- Trained and certified Security Officers shall perform breath alcohol tests at entrance/exit points of a site.
- Security Officers shall tests contractors and visitors wishing to enter sites on permanent basis in selected high risk areas or situations.

SHE Practitioners shall;

- Be trained, certified and appointed as operators for breathalyser / alcohol testers.
- Perform random or regular and voluntary testing.
- Ensure that intoxicated employees are not permitted to work.
- Ensure that the alcohol test register is completed correctly and available for auditing.( in accordance with the procedure.)
- Informing line management of the results of testing in his/her area of responsibility.

Line Managers shall:

- Ensure fair and consistent treatment in the testing of employees for substance abuse.
- Ensure that employees are informed and made aware of the content of the practice note, prior to its implementation.
- Ensure that all contractors, consultants and visitors are made aware of the practice note.
- Ensure that testers are authorised in writing.

**3.12.10 Welfare**

The Contractor shall provide accommodation for the workers. The following welfare facilities are not limited to, but shall be provided for, in a clean and suitable condition, unless agreement with the Project Manager has been confirmed regarding the use of existing facilities:

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- 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 “safe drinking water”.

No equipment or system shall be connected onto the drinking water system without prior approval of the Project Manager.

### **3.13 EMERGENCY PREPAREDNESS AND RESPONSE**

Contractors shall establish and appoint an Emergency Preparedness Response Team who will be responsible for assessing, developing and implementing an integrated emergency preparedness planning programme for the project.

Contractors, together with his sub contractors shall develop their own emergency response plan including environmental emergencies (as a guideline) for both site and offices and submit this plan to the Eskom Project Manager for approval.

The Emergency Preparedness Response Team shall compile the emergency preparedness plan that will include the relevant standards and procedures based on Eskom, National and International requirements that will be specific to Area or Site.

For example 32-108, Eskom Standard – Fire Fighting Organization, 32-123 Emergency Planning, SANS 10400 Application of National Building Regulations etc.

Identify hazards that would require a response plan, factors to be considered when evaluating risks include:

- The general nature of the operation and the associated hazards. This may include hazards associated with work processes or hazards associated with the work environment.
- Consider surrounding businesses and the risks they may pose to employees and the environment.
- List all potential emergency scenarios.

The Emergency Preparedness Response Team shall:

- Compile the schedule of emergency scenarios;
- Compile details of the control measures required;
  - ❖ How to report emergencies
  - ❖ Emergency telephone numbers
  - ❖ Notification of appropriate organizational personnel
  - ❖ Notification of 3<sup>rd</sup> parties
  - ❖ The location and staffing of an emergency preparedness control centre
  - ❖ Egress procedures and assembly points
  - ❖ All clear and re-entry procedures

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- ❖ Control of visitors and contractors
- ❖ Isolation and shut-down of vital processes and work areas
- ❖ Chemical spill clean-up and mitigation procedures
- ❖ Off-site emergencies
- ❖ Communication with the general public and the media.

- Add details of site specific response capabilities and or other arrangements;
- Review the emergency response plan;
- Arrange communication of contingency plans; and

The Contractor shall ensure that all employees and his sub contractor employees are trained on this plan.

Periodic emergency drills shall be undertaken on an annual basis.

The following records shall be kept for assurance purposes purpose:

- Emergency preparedness hazard assessments
- Emergency preparedness risk assessments
- Record of emergency preparedness audit results
- Records and analysis of emergency preparedness drills and incidents
- Records of corrective actions e.g. audits and drills
- Copies of emergency preparedness agreements with neighbouring businesses or other external service providers' e.g. local authorities, hospitals or rescue services (where relevant).

### **3.14 SHE COMMUNICATION FORUMS**

The Contractor/s and their sub-contractor/s shall 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.

The terms of reference of the Monthly SHE 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.

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

Matters that are discussed include and not limited to:

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- 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.
- Environmental Incidents and Legal contraventions
- General SHE issues.
- Matters arising from Contractor's SHE meetings.

### **3.14.1 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: Bi-Weekly or Monthly

Required Attendees:

- Contractor/s and their sub-contractor/s
  - Project Managers
  - Site managers
- Eskom:
  - Project Managers
  - Contract Managers
  - SH/E practitioners

### **3.14.2 Contractor SHE Meetings**

Objective: this is a meeting where the 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,

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upcoming work and SHE requirements, incidents and lessons learned specific SHE problems, safety performance, action plans and other relevant SHE issues such as but not limited to:

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

Chairman: Contractor Project Manager

Frequency: Monthly

Required Attendees:

- Contractor/s and their sub-contractor/s
- Project Managers
- Site managers
- Supervisors
- Health and Safety Officer (Eskom and Contractor)
- Health and Safety Representatives

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

### **3.14.3 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:

- Contractor/s and their sub-contractor/s
  - All relevant personnel (supervisors, employees, visitors, management)

### **3.15 INCIDENT MANAGEMENT**

The 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 before the end of the work shift or before 24hours or early the next day.

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The Contractor shall identify required control measures based on the root causes, assigning responsibilities for their implementation and ensuring close out and reporting back. Furthermore it includes communicating the events of the incident/accident, the root causes and the control measures to be implemented in order to minimise the probability of a re-occurrence.

The Contractor shall implement the proactive and reactive measures against which the SHE performance is monitored, measured, analysed, documented and shared with the organisation on a regular basis. This process shall provide for qualitative and quantitative monitoring and shall at least include SHE inspections, audits and incident/accident reporting, recording and investigation analysis which shall be used for the identification of preventive and corrective actions, their implementation, monitoring and closing out.

Accidents, incidents and non-conformances shall be reported, investigated and analysed to prevent re-occurrences and improve performance. Analysis will be undertaken to identify the immediate and root causes.

Requirements:

1. Incidents shall be reported and investigated.
2. This shall be a documented process.
3. Line Managers shall facilitate the accident/incident investigation process with assistance as required.
4. Remedial and or corrective action shall be taken to prevent re-occurrences.
5. Information from the investigation shall be used to inform management and plot trends.
6. Information gained from the analysis shall be shared across PDP.

The Contractor shall compile and implement procedure for:

- 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.
- Workplace Injury and Disease Recording – The purpose of this document should be a guide to the 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.

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.

The Client 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.

A comprehensive and detailed investigation report shall be submitted to the Eskom Project Manager within 7 -14 days after the incident.

The Contractor shall compile case studies for all near misses, lost time incidents, fatalities and environmental legal contraventions.

**CONTROLLED DISCLOSURE**



The Contractor shall discuss all incidents at the Client SHE committee meeting held on site.

The Contractor shall keep on site/workplace a record of all accidents and incidents.

The Contractor shall provide SHE related statistics to the Client at the end of each month.

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

Eskom reserves the right to conduct an independent investigation if not satisfy with the findings and recommendations.

### **3.15.1 Investigation committees**

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

In addition to the Contractor and his sub-contractor investigations, Eskom will also, separately, conduct its own separate investigation. The 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 Contractor.

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

#### **First Aid Injuries**

Chairman: Supervisor of Injured Person / Contractor Relevant Supervisor

Attendees:

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

#### **Medical Treatment Injuries**

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

Attendees:

- 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

**CONTROLLED DISCLOSURE**

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

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

Attendees:

- 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
  - Project Manager
  - SHEQ Manager and / or Senior Advisor Occupational Health & Safety
  - Eskom SHE practitioner

**Near miss Incidents**

- Chairman: Contractor/s Construction Supervisor 6.1 appointee

Attendees:

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

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

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

**Environmental Legal Contraventions:**

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

**CONTROLLED DISCLOSURE**

Attendees:

- Contractor/s and/or their subcontractor/s
- Environmental Officer
- Environmental Control officer
- Witness
- Person involved in contravening act

Eskom

- Project Manager
- Eskom Environmental Officer
- Eskom SHE Practitioner (if no Environmental Officer)

All investigation teams must include at least 1 person (from both the Eskom and 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).
- Please note that providing the Accident/incident investigation report does not exempt the 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.

**CONTROLLED DISCLOSURE**

- It is essential that the 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 1 month from the date of issuing of investigation report.

### **3.16 MONTHLY STATISTICAL REPORTS AND SHE PERFORMANCES**

The Contractor shall report all the monthly statistical reports and SHE performances to Eskom, on the 1<sup>st</sup> of every month or as communicated by the SHEQ Manager, name of Contractor company and name of each sub-contractor company and each company's performance,:

- Incidents: Lost time, medical; first aid, near misses, environmental incidents reported
- Manpower numbers per 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.

#### **Past SHE performance statistics of the company (at least two years)**

- The contractor is expected to provide the two year's statistics on tender stage and thereafter update the performance as required by the client.

### **3.17 ENVIRONMENTAL MANAGEMENT**

The Contractor shall establish, document, implement, maintain and continually improve an Environmental Management System and shall define and document the scope of its environmental management system.

The Contractor shall comply to project Environmental Management Plan (EMP) and the Environmental Authorisation where applicable before performing any work.

The following serves a guideline to assist the Contractor identifying environmental aspects:

#### **3.17.1 Aspect and Impact Register**

Prior to construction taking place, all aspects and impacts must be identified and a register compiled thereof. An Environmental Management Plan shall be developed to address significant aspects identified. In addition, objectives and targets shall be developed to ensure the monitoring and measurement of the significant aspects.

#### **3.17.2 Fire Hazard**

The Principal 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

**CONTROLLED DISCLOSURE**

with statutory requirements at all times. The Contractor Environmental Officer, where applicable, shall ensure that in areas which have a high fire danger rating, staff will be made aware thereof. Restrict smoking to designated areas or not at all particularly in areas that have a high fire danger rating.

### **3.17.3 Waste**

All waste generated shall be disposed of at a registered landfill site. A register of both hazardous and general waste should be kept. A waste management plan is to be compiled before commencing of work. Records of waste disposal are to be kept and updated all the time. 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 Eskom 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.

Where waste contractors have been appointed for the transportation of hazardous waste, they will be required to provide Eskom with a route risk analysis and waste manifest procedure detailing the transportation, type of waste disposed of, quantities disposed of, and how and where the waste was disposed of, and providing a certificate of disposal. The transport of waste must be in accordance with national legislation.

Waste may be collected by the relevant Municipality or alternatively taken by the Contractor to a registered landfill site. Where the Municipality does not have a weighbridge, the Contractor is responsible for obtaining a formal notification to this effect.

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

Quantities of waste disposed of shall be reported to the Environmental Advisor on a monthly basis.

### **3.17.4 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

### **3.17.5 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. All portable noise equipment and/or mobile machinery shall be tagged with a mandatory sign (MV) (hearing protection) as per SANS 10083:2004 section 7.4. Symbolic Sign: SANS 1186-1 (MV4)

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

### **3.17.6 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.

### **3.17.7 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. Records of water quantities abstracted should be kept.

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

### **3.17.8 Signing Off of the Contract**

No project should be signed off before Client 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.

**CONTROLLED DISCLOSURE**

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:

- 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.

**“Over and above the requirements identified above, all requirements of the Environmental Authorisation/Record of Decision and the EMP must be adhered to.”**

### **3.18 OPERATIONAL CONTROL**

#### **3.18.1 Housekeeping**

The 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 Contractor or for Eskom. Refer to what the requirements are in the EMP.

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

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

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

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

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

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

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

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 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 Contractor.

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

### **3.18.2 Symbolic Safety Signage**

All symbolic safety signage, that the Contractor or his/her sub-contractors are to use/display are to conform the requirements of SANS 1186 – 1:2008

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
- “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.

### **3.18.3 Hazardous Materials/Chemicals Management**

The aim of this section is to outline to the 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 Contractor shall supply the Eskom Project Manager with the following:

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

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

The 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. A register shall be maintained of all substances removed from storeroom

All dangerous and hazardous substances identified by the Contractor will be listed in Annexure A (for example). However, should there be new hazardous substances identified by the Contractor. The Contractor shall inform the Client. The Contractor shall ensure that a **process/es or procedure/s** will be in place for handling and or controlling of all dangerous and hazardous substances identified.

### **Flammable and Combustible Liquids**

Proposals to store fuel on site must have written approval from the 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.

### **CONTROLLED DISCLOSURE**

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: -

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

**Note: All Electrical Installations of any Major Hazardous Installations (MHI) and/or temporary installations shall be verified and certified by a registered Master Installation Electrician.**

### **Explosives**

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

### **Compressed Gas Cylinders**

(General Safety Regulation 9) and SABS 1548

The following requirements apply to all gas cylinders storage:

**CONTROLLED DISCLOSURE**

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

### **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

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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.

### **3.18.4 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 Contractor and their sub-contractors is appropriate to the task being performed and in good condition.

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

All machines driven by means of belts, gear wheels, chains and couplings shall be adequately guarded. A machine is guarded when persons cannot gain inadvertent access to the moving parts.

The 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.

All machinery, tools and equipment to be regularly inspected at least monthly or as required by legislation and risk assessments, registers of tools shall be kept on the safety file. The equipment should be numbered or tagged so that it can be properly monitored and inspected.

All machinery, tools and equipment must have the necessary approved test or calibration documentation where applicable prior to being brought onto the premises and the records shall form part of the SHE plan.

All fuel driven equipment must be inspected by the Eskom SHE Practitioners prior to mobilizing it onto site.

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

The Contractor shall supply, at his cost, all items of plant and equipment necessary to perform the work else otherwise indicated.

In all existing substation, a cable detector shall be sourced and utilised by the contractor to ensure safety before excavations can commence or where safety of cable have to be determined.

In case where it has be identified that there could be live cables, a cable detector shall be sourced to ensure that no excavation is done prior on making sure that the area is safe.

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

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

### **CONTROLLED DISCLOSURE**

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

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

### **Machine Guarding**

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

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

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.

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

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

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

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

### **3.18.5 Hand Tools and Pneumatic Tools**

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.

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.

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

All files and similar tools must be fitted with handles.

The Contractor must have a policy on make shift tools on site.

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.

### **CONTROLLED DISCLOSURE**

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When using the interlocking type of connection of an airline, connectors shall be secured with wire clips through holes provided to prevent accidental disconnection.

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.

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

#### **3.18.6 Boilers, Pressurised Systems and Vessels Under Pressure**

The 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.

All pressure vessels shall be provided with at least one safety valve and such safety valve should be kept locked.

The vessel under pressure should be provided with a manufacturer's plate.

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.

### **Records**

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

#### **3.18.7 Explosive Powered Tools**

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

Only certified, competent, appointed personnel (CR. Reg. 19 (1)) are allowed to operate explosive powered tools on site.

A valid permit must be obtained before commencement of work.

Safety signs and barriers must be erected before explosive power tools are used.

Users should be issued with suitable protective equipment.

### **CONTROLLED DISCLOSURE**

Cartridges and explosive power tools to be stored separately

## **Records**

Register for the issue and return of cartridges.

### **3.18.8 Lifting Machines and Lifting Tackle**

A risk assessment shall be conducted prior to commencing with the task to identify the risk involved and appropriate mitigation measures must be put in place.

If it is the Contractor's intention is to use lifting machines on site, it should be indicated in the 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.

All lifting machine operators shall be competent to operate a lifting machine. They must be in possession of a valid permit

When ever you are making use of an external contractor to do lifting work the Contractor must ensure that the operator is competent and if the Contractor is satisfied with the operator's competency after looking at his portfolio he/she should issue a temporary permit to the operator.

The Contractor should verify if the lifting machines have been examined and a performance test done.

The training should have been done according to the Code of practice by a provider registered by the Department of Labour.

Before using any lifting machines or tackle the operator should inspect it.

All lifting machines shall be examined and subjected to a performance test by an accredited person/company at intervals not exceeding 12 months.

All lifting tackle should be examined by an accredited person/company at intervals not exceeding 3 months.

Refer to the requirements of the Driven Machinery Regulation 18 and Construction Regulation 17 and 20 of the OHS Act.

All lifting tackle should be recorded on a register.

All hooks shall be fitted with a safety latch/catch.

A lock out system should be implemented to ensure that only an operator that is competent can draw lifting machines and fork lifts.

All lifting tackle should be conspicuously and clearly marked with identification particulars and the maximum mass load which it is designed for.

No person shall be moved or supported by means of a lifting machine unless such a machine is fitted with a cradle approved by an inspector.

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.

## **CONTROLLED DISCLOSURE**



- 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.

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.

Contractors and their employees shall ensure that crane loads are not carried over the heads of any workmen.

Guide ropes to be used to prevent loads from swinging.

### **Records**

- 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.

### **3.18.9 Working at Heights**

#### **Fall Protection Plan & Fall Arrest Systems**

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.

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

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.

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

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.

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

**CONTROLLED DISCLOSURE**

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.

Fall protection includes:

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

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.

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

**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.

**CONTROLLED DISCLOSURE**

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

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.

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.

Adequate precautions shall be taken by the Contractor to prevent slumping of excavations, as well as to prevent rocks and loose material falling onto workers.

All excavations done by the Contractor are to be clearly demarcated and barricaded to prevent accidental access.

**Only solid barricading will be used at areas where a fall hazard is present. Solid barricading and / or hole covers shall be provided around all holes or openings to prevent any person being injured as a result of a fall. Danger tape may only be used as a pre-warning to make the solid barricading more visible and to prevent persons from coming close to the danger area.**

Barricading must be placed as close as possible to the excavation.

If an excavation or trench endangers the stability of buildings or walls, shoring, bracing, or underpinning will be provided. Excavations and trenches that are adjacent to backfilled excavations or trenches, or which are subject to vibrations from railroad traffic, road traffic, blasting in open cast mining or the operation of machinery (e.g., shovels, cranes, trucks), must be secured by a support system, shield system or other protective systems (i.e., sheet-pile shoring, bracing).

Where it is impracticable to provide fixed guard railing, effective removable barriers shall be provided at all unguarded openings in guard railing or floors, and shall be maintained in position at all times until the hazard no longer applies.

Warning signs and flashing warning lights at night shall be displayed in suitable positions to warn any persons approaching the area of the location and extent of any excavation.

No material to be within 3m of the excavation edges.

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 to review the said register on a pre-determined frequency not exceeding seven (7) days.

Whilst work is being performed in an excavation, there shall be a supervisor, at all times.

Every twelve meters there shall be an escape ladder, in all excavations.

Requirements in Construction Regulation 11 of the OHS Act, shall apply as well.

No work shall commence in an excavation unless the excavation has been declared safe by the competent person.

### **3.18.11 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.

**CONTROLLED DISCLOSURE**

Requirements for Barricading (if risk assessments require more stringent mitigation measures than 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.

### **3.18.12 Blasting**

Requirements of the Explosives Regulation of the OHS Act shall be adhered to.

A copy of the written permission from the Chief Inspector of Department of Labour shall be obtained before use of any explosive material – refer to requirement in Explosives Regulation 13 of the OHS Act.

Requirements for the transporting and storage of explosives to be in accordance to Explosives Regulation 13.4 of the OSH Act and SANS 100228 “**Code of Practice for the Identification and Classification of Dangerous Substances and Goods**”. Published by the South African Bureau of Standards.

Should blasting be necessary during the construction phase, the necessary authorisation must be secured from the relevant local municipality. Adjacent land owners must be notified prior to the blasting activities on site.

The Construction operations may necessitate that ground and rock be blasted. 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.

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.

Only a licensed operator is allowed to blast.

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.

**CONTROLLED DISCLOSURE**

### **3.18.13 Working Near Public Roads**

The 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.

### **3.18.14 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.

#### **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.

#### **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.

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## **Alternate Procedures**

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

### **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.

## **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.

**CONTROLLED DISCLOSURE**

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.

## **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.

### **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.

## **CONTROLLED DISCLOSURE**



## **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.

### **3.18.15 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 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.

**CONTROLLED DISCLOSURE**

- 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.

### **3.19 PERMIT TO WORK**

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

If 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 representative is to provide more details on the permit to work system for the specific work to be conducted by the Contractor.

### **3.20 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

The Contractor shall recognise that PPE is the last line of defence; therefore the correct use is vital in ensuring that it is effective.

Requirements:

1. The need for PPE shall be identified for all activities and this assessment shall be recorded.
2. All PPE shall comply with SANS standards or any other specified standards.
3. Employees shall be educated in the correct use, care and storage of PPE and records shall be kept.
4. Critical to the successful use of PPE, is the enforcement by site supervisors, who shall at all times demonstrate the correct use, personally and in addition carry out inspections to ensure compliance.

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5. Once the individual has been trained in the correct use and care and the PPE has been provided, it shall be the responsibility of the individual to use the PPE correctly.

Contractor's employees and his sub-contractor employees at the construction site, including visitors, shall use the following 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 / overalls with a visibility imprint at the back or front;

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.).

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

When working at heights, only double lanyard safety harnesses are allowed. No safety belts for Working at Heights are not allowed on site.

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.

### **3.21 SHE MONITORING AND MEASUREMENT**

Eskom reserves the right to conduct unannounced audits on all Contractors

#### **3.21.1 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

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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.

### **3.21.2 Contractor SHE Performance Evaluation**

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

### **3.21.3 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.

### **3.21.4 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.

### **3.21.5 SHE Plan Audits**

There will be monthly audits conducted by Eskom on the 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 activity until rectification of findings.

Refer to section on "Work Stoppage" in this SHE Specification.

## **3.22 NON-COMPLIANCE TO MANDATORY SHE SPECIFICATION & PDPMAN-FM-074**

### **Termination due to Non Compliance**

Eskom reserves the right to terminate the contract in the event that the Contractor is found to be consistently non compliant to any SHE related issue.

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### **Penalties for Poor SHE Performance**

Eskom reserves the right to impose penalties on Contractors due to poor SHE performance. The terms and conditions shall form part of the initial Tender/Contract.

### **Fines for SHE Violations**

Eskom reserves the right to impose fines on Contractors due to SHE violations. The terms and conditions shall form part of the initial Tender/Contract.

### **3.23 WORK STOPPAGE DUE TO NON-COMPLIANCE OR PLANNED WORK STOPPAGE**

The conditions that lead to work stoppages are based on:

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

The process to be followed is:

- The relevant activity must be stopped;

The Eskom site/project manager and/or 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.

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 Contractor.
- The 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, 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.

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### **3.24 OMISSIONS FROM THE MANDATORY SHE SPECIFICATION & PDPMAN-FM-074**

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 omitted to address certain SHE aspects pertaining to the scope of work tendered for, it is legal responsibility of the Contractor to include it in their SHE plan and inform Eskom of omissions when submitting the tender.

## **4. AUTHORIZATION**

This document has been seen and accepted by:

<b>Name</b>	<b>Designation</b>
Naresh Hari	General Manager – Power Delivery Projects
Geoffrey Small	SHEQ Manager – Power Delivery Projects
Bob Naraghi	Senior Manager Projects – Central Grid
Francois Bothma	Senior Manager Projects – 765 kV
Johan Bornman	Senior Manager Projects – Cape Grid
Rajesh Himchall	Senior Manager Projects – Northern Grid
Bongani Mabena	SHEQ Manager – Cape Grid
Vusumuzi Mthimunye	SHEQ Manager – Central Grid
Wayne Oberem	SHEQ Manager – Northern Grid
Zola Hlatshwayo	SHEQ Manager – 765 kV

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## 5. REVISIONS

Date	Rev.	Compiler	Remarks
June 2009	0	Adelice Mafole	New document
June 2010	1	Elliot Baduza	Change from Form to Standard

## 6. DEVELOPMENT TEAM

Name	Designation
Adelice Mafole	Senior Advisor Occupational Health and Safety
Siseko Mdlokolo	Senior Advisor Occupational Health and Safety
Yandile Galada	Senior Advisor Occupational Health and Safety
Ellen Makhafola	Senior Advisor Occupational Health and Safety
Joseph Makhuvele	Senior Advisor Occupational Health and Safety
Randall Williams	Senior Advisor Occupational Health and Safety
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Emeldah Madike	Senior Advisor Environment
Rosetta Rammutla	Senior Advisor Environment
Anel Bezuidenhout	Senior Advisor Environment

## 7. ACKNOWLEDGEMENTS

ED A&IRM Team

Cx A&IRM Team

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