

# Contractor SHE

Safety - Health - Environment

## Management Handbook



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## I. About Eskom

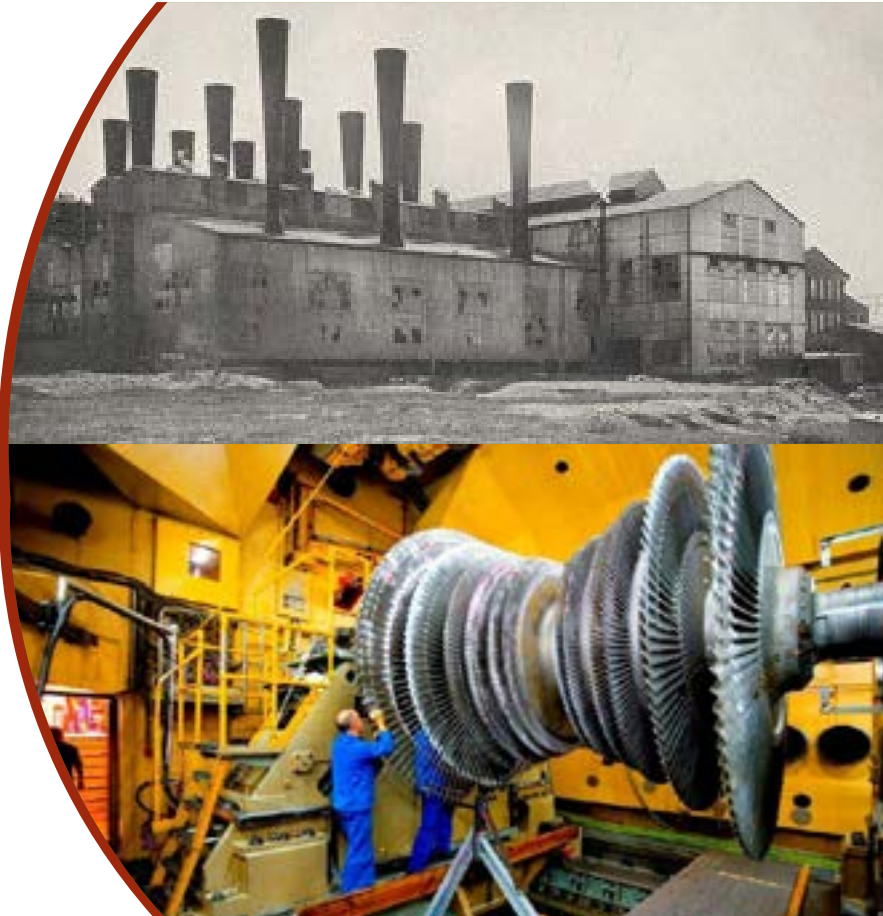
Eskom was established in South Africa in 1923 as the Electricity Supply Commission. In July 2002, it was converted into a public, limited liability company, wholly owned by government. Eskom is one of the top 20 utilities in the world by generation capacity (net maximum self-generated capacity: 41 194 MW).

Eskom generates approximately 95% of the electricity used in South Africa and approximately 45% of the electricity used in Africa. Eskom generates, transmits, and distributes electricity to industrial, mining, commercial, agricultural, and residential customers and redistributors.

Additional power stations and major power lines are being built to meet rising electricity demand in South Africa.

### Eskom in Africa

While most of Eskom's business is within South Africa, the company also buys and sells electricity in the SADC region. Eskom's involvement in African markets beyond South Africa is currently focused on projects that have a direct impact on ensuring a secure supply of electricity for South Africa itself.



## II. Eskom value chain






### III. Contractor management personnel contact details:

For more information on the Contractor SHE Management Handbook, the following persons based at Megawatt Park can be contacted:

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### IV. Icon used

Symbol	Meaning	Description
	Reference	The symbol means a procedure, standard, guideline etc. which should be consulted for more detailed information regarding the specific aspect under discussion.

## Section I: Introduction

Given the strategic importance of contractors across Eskom, substantial efforts are required in order to introduce safe systems of work across the entire organisation, with the purpose of ensuring continual safety and environmental performance improvement in our drive for Zero Harm. Eskom's Zero Harm aspiration extends not only to our own employees, but to our contractors as well. This attitude is a commitment by Eskom management to the concept that Zero Harm is the only acceptable goal and that any other goal implies that injuries are acceptable. Zero Harm drives everything we do. Our leadership genuinely believes that all incidents (safety, occupational health and environmental) are preventable, and we have policies, procedures, processes, tools, and behavioural expectations in place to assist us in achieving our Zero Harm goal. The Contractor Safety, Health and Environmental Handbook has been developed as one of the tools necessary to define processes governing contractor safety, health, and environmental (SHE) performance within Eskom. Contractors are expected to cooperate with Eskom to ensure that Eskom's goal of Zero Harm is achieved.

### 1.1 Purpose of the handbook

The purpose of the Contractor SHE Handbook is to

- provide information on safety, health, environment, and security management to

- contractors/suppliers and vendors; and
- ensure that contractor/suppliers and vendors have information for compliance with all Eskom occupational safety, health, environment, security and legal requirements.

### 1.2 Applicability

- The requirements in this handbook shall apply to all persons carrying out any form of contract work for, or on behalf of Eskom, that is, agents, principal contractors, contractors, suppliers, vendors, and service providers.

**Note:** this handbook does not relieve contractors of their responsibility or legal obligations for safety, health and environmental compliance under the Occupational Health and Safety Act 85 of 1993, Mine Health & Safety Act, 29 of 1996, municipal bylaws, environmental requirements, SANS codes of practice, and Eskom requirements.

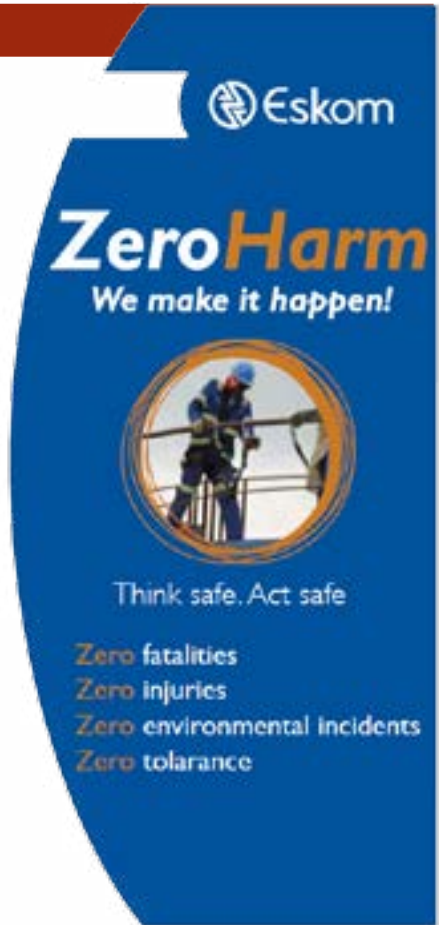
### 1.3 Eskom's value of Zero Harm

Our vision is ZERO HARM:

- Zero Fatalities
- Zero Injuries
- Zero Environmental Incidents
- Zero Tolerance

### 1.4 Eskom life-saving rules

Eskom and its subsidiaries will conduct business



with respect and care for people to ensure that no operating condition or urgency of service endangers the life of anyone or causes injury or damage to the environment. Eskom is committed to preventing all work-related injuries. In fulfilling this commitment to protect both people and property, management will provide and maintain a safe and healthy work environment, in accordance with industry standards and in compliance with legislative requirements. At-risk behaviour leads to incidents. Life-saving Rules are non-negotiable safety rules that have been created to enforce



zero tolerance for serious at-risk behaviours. These rules have been determined in terms of the consequences of the behaviours they describe, that is, if a particular set of behaviours or actions has a very high probability of causing disabilities or fatalities when performed. There may be instances where divisions and/or business units have additional rules addressing their specific risks, and these will be supplementary to the five Eskom Life-saving Rules.

#### Rule 1: “Open, isolate, test, earth, bond, and/or insulate before touch”

With the aim to ensure a safe electrical work environment, no person may work/operate on, around or near any electrical network, line or apparatus, electrically connected to the power system and/or electrically charged and/or not electrically charged unless:

- (a) He/she is trained and authorised as competent for the task to be done;
- (b) A pre-task risk assessment to identify all risks and hazards has been conducted prior to any work commencing;
- (c) He/she follows the requirements on OPEN, ISOLATE, TEST, EARTH, BOND and/or INSULATE BEFORE TOUCH, correctly based on applicable/related standards, procedures and outcome of risk assessment fit for the type of work or task to be performed.



- (d) The authorised person (team leader) has certified and physically shown all team members that the apparatus is safe to work on;
- (e) He/she makes the specific electrical environment safe prior to performing the work; and
- (f) All the appropriate PPE (including face shield and insulated gloves for low voltage work) are worn.

#### Rule 2: “Hook up at heights”

Working at height is defined as any work performed above a stable work surface or where a person puts himself/herself in a position where he/she is exposed to a fall from or into. Workers are required to ensure that working at height is carried out safely and that persons performing the work do not endanger themselves or other persons who may be exposed to associated hazards. No person may work at height where there is a risk of falling unless:

- (a) He/she is medically and psychologically fit to work at height; and
- (b) A pre-task risk assessment to identify all risks and hazards has been conducted prior to commencing any work of this nature;
- (c) He/she is appropriately trained as determined by the risk assessment
- (d) He/she is appropriately secured during



- ascending and descending; and
- (e) He/she is using Eskom approved fall arrest system where applicable.

#### Rule 3: “Buckle up”

Where required, the proper wearing of seat belts for any driver, operator and passenger is mandatory in all vehicles/equipment when driving and/or travelling for Eskom business purposes. The driver is obligated to ensure that he/she as well as all passengers are properly seated and wearing their seatbelts at all times while being transported in the vehicle, as per Eskom specifications (for example transporting people on back of trucks in a cabin).



Note: This rule is applicable on any road or parking lot, irrespective of the speed, and when the vehicle moves in a forward or backward direction.

#### Rule 4: “Be sober”

No person who is under the influence or who appears to be under the influence of intoxicating liquor or drugs will be permitted to enter, or remain on an Eskom site or conduct Eskom business or drive/operate a vehicle/equipment for Eskom business purposes. This includes any level of alcohol



or the presence of any drugs, controlled substances, and/or illegal substances in the body that impairs or could impair mental and physical functioning, irrespective of when the substance was used.

#### Rule 5: “Ensure that you have a permit to work”

Where an authorisation limitation exists, no person shall work without the required Permit to Work (PTW), which is governed by for example the:

- Plant Safety Regulations or
- Operating Regulations for High Voltage Systems (ORHVS) or
- Any other activity where a permit is required.

No plant is to be returned to service without the cancellation of all permits on that plant in accordance with procedure, unless permission is granted for a particular plant to be returned to service with permits still open, like in the case of redundant systems.

Note: In the case of live work, a “live work declaration form” is to be completed by the authorised person, who is the person responsible for the safe execution of work according to relevant standards and procedures. Outline the key principles or rules to support the implementation of the standard statement.

All safety rules and requirements are crucial



and must be adhered to strictly. If any of the Eskom Life-saving Rules are not adhered to, it will be regarded as a serious offence and will result in a disciplinary process in accordance with the Eskom Disciplinary Code and Procedure.

 Eskom Lifesaving Rules  
240 – 621 96227

### 1.5 Eskom Safety, Health, Environment, and Quality (SHEQ) policy

Eskom is South Africa's primary electricity supplier and, as such, generates, transmits, and distributes electricity to industrial, mining, commercial, agricultural, and residential customers. It also sells electricity to municipalities, which, in turn, redistribute it to businesses. In doing so, Eskom shall supply reliable and affordable electricity within a challenging business, social, natural, and political environment, without compromising future sustainability, the aim of which is to ensure control over Eskom's activities to prevent harm to its employees, contractors, and service providers, as well as members of the public, and achieve environmental duty of care and quality in the provision of electricity to Eskom's customers and the protection of its assets. Eskom will integrate safety, health, environment, and quality requirements into activities, so that decisions made ensure the consideration of economic development, environmental quality, and social equity to continually improve performance and achieve stakeholder requirements.



### Eskom's Safety, Health, Environment and Quality (SHEQ) Policy 32-727

Eskom will integrate safety, health, environment and quality requirements into its activities so that decisions are made to ensure the consideration of economic development, environmental quality, and social equity. This will assist in the continual improvement of performance and the achievement of stakeholder requirements.

Eskom's commitment to safety, health, environment and quality management is achieved through

1. implementation of management systems;
2. achieving compliance with applicable legislative and other requirements;
3. addressing the needs and expectations of Eskom's electricity customers and stakeholders;
4. setting SHEQ objectives and measuring performance to achieve continual improvement;
5. conducting risk-based medical surveillance;
6. SHEQ training and awareness;
7. stakeholder engagement;
8. ensuring that Eskom's suppliers meet its SHEQ requirements;
9. ensuring that adequate resources are available for SHEQ management; and

10. the prevention of pollution, pursuing a low-carbon future and prioritising energy and water efficiency and conservation.

#### Policy principles or rules

Eskom's principles and rules that underpin the way in which it approaches SHEQ are as follows:

1. Poor quality, occupational and environmental incidents are preventable.
2. A Zero Harm culture.
3. Management is accountable for SHEQ and the responsibility is with each employee.
4. Respect and care for people, the environment and assets.
5. Eskom will strive to ensure Zero Harm to employees, contractors, the public, and the natural environment.
6. Conformance to Eskom's Life-saving saving Rules applies to all employees, contractors, and visitors.
7. **No operating condition, or urgency of service, justifies exposing anyone to negative risks arising out of Eskom's business, causing an incident with health, safety, environmental, and quality consequences.**
8. Governance, decision-making processes and strategies are based on SHEQ objectives and criteria.

#### CHIEF EXECUTIVE

Eskom Holdings SOC Ltd

### 1.6 Safety, Health and Environmental (SHE) legislation

The objectives of safety, health, and environmental (SHE) legislation are:

- to promote the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery;
- to protect persons other than persons at work against hazards to health and safety arising out of, or in connection with, the activities of persons at work;
- to create awareness and effective standards of health and safety management by every employer;
- to provide for matters connected with health and safety; and
- to ensure environmental duty of care, the prevention of pollution and degradation and conserve the environmental resources.

### 1.7 Eskom environmental objectives

Eskom's commitment to environmental duty of care is based on its purpose "to provide sustainable electricity solutions to grow the economy and improve the quality of life of people in South Africa and the region", its value of "Zero Harm", and its strategic objective of "reducing Eskom's environmental footprint and pursuing low-carbon growth opportunities". As such, Eskom has developed an environmental management strategy aimed at achieving Eskom's purpose, values, and strategic objectives with regard to the environment.

The key objectives of the environmental strategy are illustrated below:



**Informed decision-making to avoid harm to the natural environment, minimising financial and legal liabilities** through effective leadership, appropriate governance structures with competent skills.



Achieve **legal compliance** to environmental legislation as a minimum requirement in all activities through effective management systems, monitoring, reporting and research.



**Reduce particulate and gaseous emissions** to minimise the impact on human health and complying with regulated emission standards.



**Reduce fresh water usage and eliminate liquid effluent discharge** to avoid impacting water resources, including groundwater through effective water management processes and the use of mine water.



Enhance efficiency of **waste** management through reduction, reuse and recycling practices.

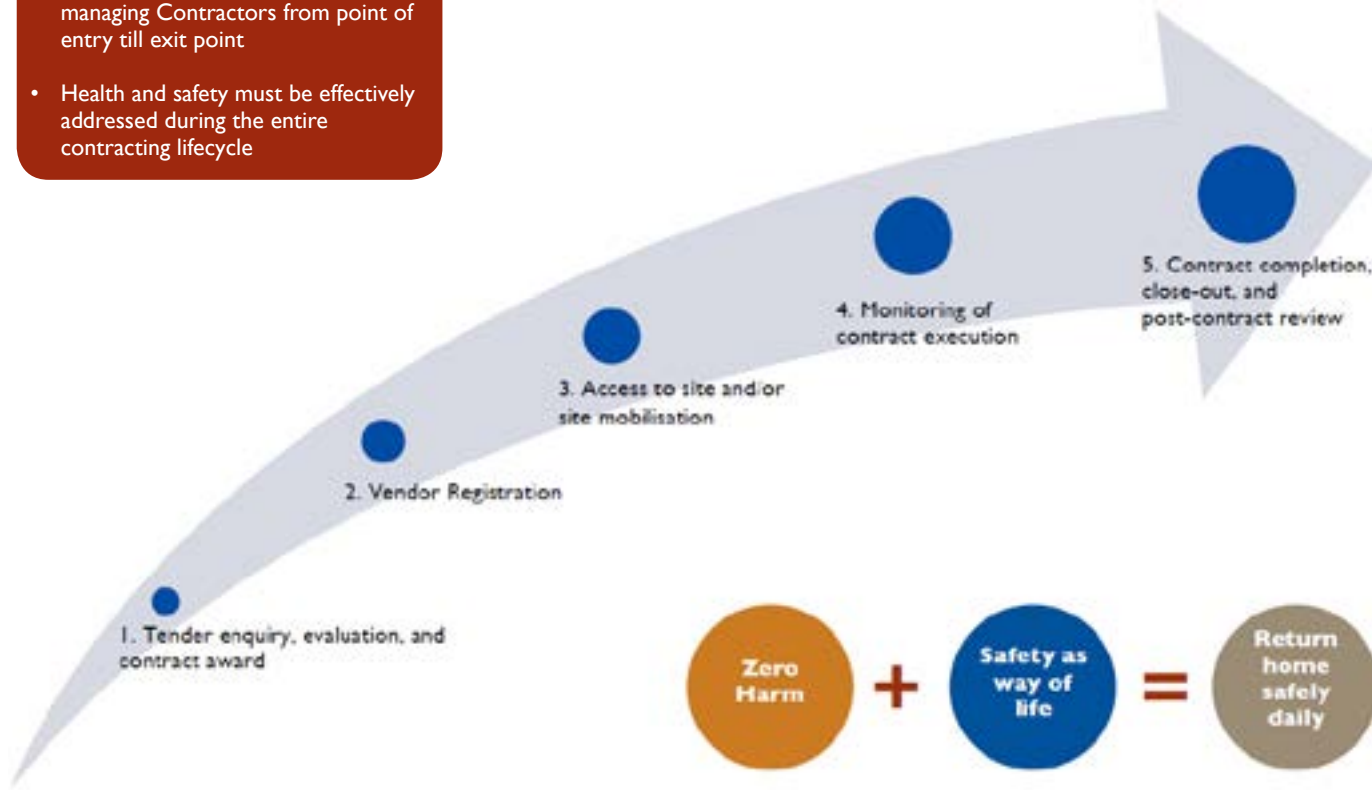


Minimise the impact of our activities on ecosystems and enhance ecosystem services through responsible land management practices.



## 1.8 Contractor/supplier management process

- Eskom has adopted a model for managing Contractors from point of entry till exit point
- Health and safety must be effectively addressed during the entire contracting lifecycle



Process	Requirements
Tender enquiry evaluation and contract award	<ul style="list-style-type: none"> <li>Contractors must submit a SHE plan based on the specification, valid letter of good standing, proof of competency, employee medical certificate of fitness, as a minimum but more requirements will depend on the risk associated with the project.</li> <li>A health and safety agreement with reference to section 37(2) of the OHS Act must be signed between Eskom and the principal contractor.</li> </ul>
Contractor/supplier registration	<ul style="list-style-type: none"> <li>Contractors applying for registration on the Eskom supplier's database must complete a Health and Safety evaluation questionnaire. The completed questionnaire must be assessed to determine whether the contractor qualifies for successful registration on the Eskom supplier's database from Health and Safety perspective.</li> </ul>
Access to site or site mobilisation	<ul style="list-style-type: none"> <li>Before the contracted service or work begins, all contractors must undergo health and safety induction training pertaining to the site in order to familiarise themselves with essential health and safety information applicable to the site and the service or work to be performed. Divisions must establish processes for site access for the different types of contractors.</li> <li>Contractors must ensure that their own employees undergo a job specific safety induction.</li> </ul>
Monitoring of contract execution	<ul style="list-style-type: none"> <li>During contract execution, regular self audits by contractors should be done to ensure compliance with the Eskom and legal health and safety requirements.</li> <li>Monthly audits by Eskom will also be done to meet the requirements according to construction regulations.</li> <li>Contractors must ensure that permanent and adequate on-site management and supervision is available for the entire duration of the work that is being performed or service that is being rendered.</li> <li>Proper communication between Eskom and the contractor related to on-site processes and performance against health and safety expectations must be maintained throughout the contract execution period.</li> <li>A mechanism to monitor health and safety performance and the compliance of contractors during contract execution at predetermined interval must be in place and reports should be provided for the post-contract review process.</li> </ul>
Contract completion, close out and post contract review	<p>Contractors will have to undergo an evaluation process to assess the overall health and safety performance of the contractors on completion of the contract or service agreement. The post-contract evaluation will be on the following:</p> <ul style="list-style-type: none"> <li>Effective management of major risk;</li> <li>Effective management of health and safety expectations;</li> <li>Performance against agreed targets, objectives and action plans;</li> <li>Documented action plans for closure of all outstanding items for health and safety inspections, self and external audits.</li> </ul>



## Section 2: General Safety, Health, and Environmental Requirements

### 2.1 Safety, Health, and Environmental (SHE) specification

The purpose of a SHE Specification document is to provide suppliers (contractors, service providers, and consultants) with essential information on significant SHE aspects of the project/contract on which their planning for SHE management will be based. The SHE specification is provided to ensure that all project personnel and site-based suppliers are aware of, and comply with, the health and safety requirements for the contract(s).

Contractors have the crucial responsibility of executing on-site/project/contract safety, health, and environmental duties for their activities/ services. Each contractor is responsible for ensuring that his/her employees and the employees of any appointed contractors comply with all applicable occupational health and safety legislative requirements and the respective policies and procedures of Eskom. Project-specific SHE specifications must be compiled by the client and designated employee.

### 2.2 Safety, Health & Environmental (SHE) plan

A SHE plan is a documented plan that addresses hazards identified and includes safe work procedures to mitigate, reduce, or control the hazards identified in the SHE specification and the project risk assessment. It is specific to each project undertaken and

site where work is done, is compiled by the contractor, and must be approved by Eskom or an appointed agent prior to the commencement of activities on a project. The contractor and Eskom or its agent must both be signatories to the SHE plan once agreed and accepted.

This plan has to be regularly updated to take account of any changes in project scope and conditions. The SHE plan must cover all aspects of the Safety, Health and Environmental procedures to be applied for the duration of the contract by all contractors.

### 2.3 Safety, Health & Environmental (SHE) file

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

**Note:** no contractor shall work on any Eskom construction site without a SHE file.

### 2.4 Hours of work

Both shift work and long work hours have been associated with health and safety risks,

particularly from fatigue; therefore, staff who consistently work excessive hours of overtime risk their safety and health and those of their colleagues. All work conducted on sites shall be within the legal requirements in accordance with the Basic Conditions of Employment Act. All parties must take reasonable measures to ensure that workers do not overextend themselves and guard against the effects of fatigue.

Contractors shall timeously notify their Eskom project manager of any work that needs to be performed after hours or during extended hours, unless called on in the event of an emergency, of which the project manager would be aware and for which he/she must take necessary precautions. Where applicable, the notification should include proof of application for extended overtime to the Department of Labour and/or the letter of approval from the Department of Labour.

### 2.5 Workers compensation

In accordance with the Compensation for Occupational Injuries and Diseases Act, 130 of 1993, Eskom requires that contractors (employers who employ one or more workers in connection with their business or activities) register with the Compensation Fund and provide Eskom with a valid letter of good standing.

### 2.6 Medical surveillance

Medical surveillance is based on the occupational risk exposure of employees. It is a statutory requirement according to the Occupational Health and Safety Act, 85 of 1993, and forms an essential component of an occupational health and safety programme. Medical surveillance is a planned programme of periodic medical examinations, which may include clinical examination, biological monitoring, and/or medical tests of employees by an occupational health nurse practitioner or, in prescribed cases, by an occupational medical practitioner.

The purpose of medical surveillance is as follows:

- To comply with statutory requirements.
- To determine fitness for duty by assessing:
  - whether or not the employee is physically/mentally fit and able to perform his/her current job without any ill effects;
  - whether he/she is able to perform the work, although this may adversely affect his/her medical condition; and
  - whether he/she is able to perform the work, but not without unacceptable risk to his/her health and safety or those of other workers or the community.
- A health risk assessment should be conducted to determine the potential exposure to hazards by employees.
- Appointed contractor employees must

also be in possession of a valid medical fitness certificate.

- A certificate of fitness shall be relevant to the type of work (risk-based) that the employee will be carrying out.
- The contractor shall maintain a medical surveillance programme for the employees.

### 2.7 Risk assessment

Risk assessment is the process of identifying the hazards, analysing or evaluating the risk associated with the hazards, and determining appropriate ways to eliminate or control the hazards. The objective of risk assessment is to proactively identify, assess, and mitigate, as far as possible, all risks to which people and the environment are exposed.

#### 2.7.1 Risk assessment process

The intent is zero tolerance of unsafe acts and conditions on-site through the assessment of risk of each operation and the provision of the necessary means to eliminate or minimise the risk to ensure a healthy and safe working environment.

Additional process-specific risk assessments are required for certain tasks throughout the project. Guidelines for actual steps involved in an operation-specific risk assessment are as follows:

#### 1. Determine risk.

- Identify hazards, and define possible exposures (the routes of entry, frequency,



- and duration) to such hazards.
- Describe the risks associated with each hazard (potential harm to people and the environment).
- Record the identified risk in the risk register.

## 2. Assess and analyse risk.

- Determine what might potentially happen, so that cost-effective control measures can be put in place to protect the person, operation, and/or equipment against the losses that would be expected if these measures were not in place.
- Use the risk matrix to evaluate the potential impact/consequence of the exposure.

## 3. Evaluate risk.

- Rank the risks in different categories based on the level of risk that has been determined, that is, very high, high, medium, or low.

## 4. Reduce and eliminate risk.

- Develop a risk management strategy to mitigate the impact and/or exposure of assessed risks.
- To establish the actions to be taken, consider the “hierarchy of prevention”, where the highest-order type of preventive measure will be the most effective and sustainable.
- Consider mitigation/hierarchy of control measures in terms of risk elimination, reduction, transfer, and tolerance.

## 5. Monitor and review risk.

- On a continuous basis, review/re-analyse the identified risks.
- Review risks to assess the effectiveness of controls and whether the risk mitigation is being managed properly or not.
- Formally periodically review risks by risk owners to assess the implementation and effectiveness of the entire risk assessment process, including controls.

The OHS Act, together with the Regulations, places a duty on the employer to conduct hazard identifications and risk assessments on all tasks/work. This is to ensure that all potential hazards are identified, that the risks are assessed, and that precautions, such as elimination or mitigation of the hazards and training of the exposed employees, are undertaken.

 Occupational Health & Safety Risk Assessment Procedure 32-520



## 2.8 Safe work procedures

A safe work procedure (SWP) is a written instruction outlining the preferred method of performing a task/activity and outlining potential hazards and associated control measures to be applied. When a risk assessment identifies the need or where the task involves a risk score of extreme, high, or medium, a safe work procedure should include the following:

- 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
- The personal protective equipment to be worn
- The actions to be undertaken to address safety issues that may arise while undertaking the task
- The level of supervision required for the task
- The training and qualifications required by the workers to perform the task
- The supervisor for the task or job and the employees who will undertake the task

## 2.9 High-risk activities

When work is being performed in an area where a high safety and health hazard exists such as work at heights:

- permanent and adequate on-site supervision must be available for the entire duration of the work that is being conducted; and

- erection and maintenance of all the required barricading, lighting, flags, flashing lights, or other safety control equipment to enable operations to proceed in a safe manner should be provided.

## 2.10 Job planning

On receipt of the task/work order, the pre-task planning should be done to check all required/allocated resources. In most cases, the pre-task planning may take place off-site; however, where required, it may include a visit to the work site to assist with the planning.

Identification of the inherent hazards associated with the task should be included in the pre-task planning phase. Depending on the complexity of the task, a detailed pre-task plan would be required, with sufficient detail documented.

## 2.11 Behaviour/job observations

Behaviour safety observations are an essential tool within the SHE management process. The objective of behaviour safety observations is to assess and address the actual safe and unsafe behaviours of people in the workplace as well as workplace conditions that are caused by the actions or non-actions of employees, contractors, or their supervisors. These observation interventions will provide management with a clear picture of the current safety and health culture in the various workplaces, which is reflected in the





actual behaviours and conditions versus the expected safety requirements.

The intent of the behaviour observation process is for management to be visible in the workplace and for them to:

- recognise and encourage positive behaviours, so that they are sustained;
- immediately address and correct unsafe behaviours and conditions; and
- provide a two-way communication channel to discuss safety and health achievements and concerns regarding employees, contractors, and visitors.

Contractors are encouraged to do safety observation to identify critical behaviours that need to be addressed to avoid injuries.



Behavioural Safety Observation  
32-407



## Section 3: Safety, Health, and Environmental Induction Training

It is a requirement of working for Eskom that all contractors, their employees, and appointed contractors undergo safety, health, and environment induction prior to working on their sites. It is Eskom's policy that all activities on Eskom premises and sites are carried out safely and in full compliance with relevant legislation, understanding the full scope of the task as well as the sub-tasks that may form part of the main task. Signatures of attendees shall be obtained and filed in the site's SHE file.

### 3.1 Eskom induction training

All contractors performing work for Eskom or on behalf of Eskom shall undergo Eskom SHE induction. The Eskom SHE induction shall be provided by the Eskom representative at the operating or business unit under whose jurisdiction the work is to be executed.

### 3.2 Contractor induction

All contractors and their employees are required to attend formal safety induction training. Such training shall be conducted by contractor management, environmental officers, construction safety officers, or construction supervisors. Training shall be completed prior to employees being permitted onto any construction site for work.

Principal contractors shall ensure that their appointed contractors fulfil this requirement.

Induction training must be presented in English and, where necessary, be translated into other language(s) by the training presenter during the presentation to ensure that it is understood by all the persons concerned.

### 3.3 Visitors to the site

All visitors to the site shall be required to undergo site-specific safety, health and environmental induction prior to being allowed access to the site. All visitors shall remain in the care and custody of a contractor-appointed employee (host). Visitors are not permitted to undertake any construction work of any nature. If any work is to be undertaken, this shall be done via a contract.

### 3.4 Job specific training

Contractors shall ensure that all their employees receive task-specific training for the type of work/tasks they are to perform. The training shall extend to include relevant procedures, hazard identification, and risk assessments. Contractors shall maintain comprehensive training records of all employees under their control.

All training given during the period of employment shall be recorded in the site SHE file. 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 retraining as soon as reasonably practicable to cover such amendments.

### 3.5 SHE communication

#### 3.5.1 SHE committees

Communication is an integral component in an organisation. All contractors shall establish statutory SHE committees in terms of sections 19 and 20 and General Administrative Regulation 5 of the OHS Act and Eskom requirements. The contractor shall ensure that a SHE committee be formed and shall perform all statutory functions. Attendance lists shall be kept for all the health and safety meetings and any other meeting where SHE management is an agenda item and discussed.

Where it is not operationally possible to involve all employees in the statutory health and safety committee meeting, contractors must establish non-statutory health and safety committees to complement the statutory committees. These committee meetings must be held at the work sites or where appropriate meeting facilities are available, and attendance lists shall be kept.

#### 3.5.2 Toolbox talks (also known as tailgate talks/meetings)

Contractors shall have a daily toolbox meeting. Preferably, this should be done prior to the commencement of the day's work, but within the day's work hours. Where this is not practical, time must be made during working

hours to conduct the talks. The meeting is expected to be brief and concise. Subjects/topics must ideally be applicable to the job/task at hand.

Near-miss incidents, company-related incidents, incidents recalled from other organisations, environmental compliance requirements and upcoming work are to be discussed, along with suggestions and comments. Ideally, meetings should be kept short (approximately 15 minutes). Attendance lists shall be kept for all these meetings.

#### 3.5.3 Safety, Health & Environmental communication

Constant communication with employees creates an interest and feeling of being part of the team. Various methods of communication could be in the form of, but not limited to:

- posters;
- videos;
- competitions;
- newsletters;

#### 3.6 Public safety

Eskom upholds the rights of members of the public and maintains an awareness and educational programme to protect the public against the risks that may arise out of, and in the course of, Eskom's activities. Similarly, contractors shall share the same respect for the public. Contractors, where working in any area where members of the public have access to, or can approach, the work site, will

be approached by the public for reasons of inquisitiveness, members airing complaints, vandalism, theft, public unrest, intimidation, stray/wandering animals, etc. and will then implement such measures that will place great emphasis on public safety.



## Section 4: Safety, Health, and Environmental Competency



People selection and training are basic principles that will increase personal capability and awareness of risk when dealing with operational hazards and activities that have a potential to cause personal injury as well as those activities that have the potential to impact the environment.

#### 4.1 OHS competence

Contractors shall establish a risk management training programme for employees to ensure that they are prepared to execute every function and activity within their job parameters in a safe manner physically, mentally, and technically. The content of the training shall be defined according to the risks associated with the activities and shall be revised whenever there is a change in the risk assessment, activity, or SHE legislation.

Eskom has the right to identify any additional SHE-related training courses in the interest of the contractors' SHE programme. The contractor shall, for the duration of the contract, maintain comprehensive records of all employees under his/her control (including all employees of the appointed contractor).

 SHE Training and Development  
32 - 477





## Section 5: Contractor Roles and Responsibilities

The Chief Executive (CE), as the employer in terms of the OHS Act and in general terms, has the overall responsibility and liability for the safety and health of all his/her employees.

All contractors performing work for Eskom must take all reasonably practicable steps to prevent construction-related incidents and harm to any person, including members of the public, and damage to property and the environment. Although Eskom contractors are “employers” in their own right, they are still required to abide by Eskom requirements as well as the relevant safety, health, and environmental legislation.

### 5.1 Statutory appointments

The principal contractor must compile the statutory occupational health, safety, and environmental structure for the contract, as well as an organogram, and must appoint the relevant people, in writing.

Where Business Units (BUs) require additional non-statutory appointments to be made by contractors, these are permitted, where applicable.

Copies of all appointments made by the contractor shall be included in the SHE file and copies shall be provided to the Eskom representative.

Where construction work is conducted on sites governed by mining legislation, the appropriate equivalent appointments and assignments shall be made. Depending on the nature of the contract, the assignments shall be expanded. Copies of these appointments must be available on-site for inspection and audits.

### 5.2 Principal contractors

- In terms of the Construction Regulations, when principal contractors appoint contractors, the principal contractor would then have the same role and responsibility in relation to the appointed contractors as Eskom has to the principal contractor.
- It must be noted that the principal contractor remains accountable and responsible for his/her appointed contractors. None of the additional safety requirements specified by Eskom reduce the principal contractor's accountability and responsibility for the safety and health of his/her employees and appointed contractor employees within his/her working area.
- All contractors are required to carry out all other duties as listed in the Construction Regulations, sections 8 and 9 of the Occupational Health and Safety Act, and other regulations that form part of the Occupational Health and Safety

Act, including all Eskom's health and safety requirements.

### 5.3 Appointed contractors

In terms of the Construction Regulations, all the duties that Eskom has towards the principal contractor; the principal contractor; in turn, has towards all his/her appointed contractors. It must be noted that the principal contractor remains accountable and responsible for his/her appointed contractors. However, appointed contractors still have the accountability and responsibility for the safety and health of their employees and any appointed contractor employees within their working area. Any areas of concern should be discussed urgently with the principal contractor.



The relationship between the principal contractor and the appointed contractor will be governed by the contractual arrangements into which they have entered.

### 5.4 Management and supervision of construction work

A Competent construction manager shall be appointed, in writing, in a full-time capacity for construction work with the duty of managing the construction on a single site, including the duty of ensuring occupational health and safety compliance. In the absence of a construction manager an alternate must be appointed by the principal contractor.

The construction manager must in writing appoint construction supervisors responsible for construction activities and ensuring occupational health and safety compliance for construction sites.

### 5.5 Employees

Contractor employees are responsible for their own safety and health as well as the safety and health of their colleagues while at work. Contract management cannot be expected to be solely responsible if any of contractor employees do not cooperate with legislative and Eskom safety and health requirements.



## Section 6: Safety, Health & Environmental Incident Management

This section describes the requirements of incident management for the effective management of occupational diseases/illnesses, injuries, and environmental damage that may occur during the course of Eskom's business.

The steps to be taken for all SHE incidents are as follows:

1. Incident identification
2. Initiation and execution of emergency response
3. Notification and reporting to relevant stakeholders
4. Incident Prioritization
5. Classification and recording
6. Incident investigation
7. Management of safety measures
8. Incident close out.
9. Incident communication – occurs throughout the incident management process.

This is the process to ensure and facilitate the effective and efficient management of incidents from the moment that an incident occurs until it is proven and tested that adequate corrective and preventive measures (that is, safety measures) have been put in place to prevent such or similar incidents. Any incident or near miss involving the contractor or a third-party's personnel, property, plant,



or equipment shall be reported as soon as reasonably practicable, but not later than 24 hours, to the BU Safety Risk Department in which they are working and to the project manager.

### 6.1 Incident investigations

Contractors in whose area the incident occurred shall ensure that a preliminary investigation commences within 24 hours after the incident and that all possible physical evidence is collected, collated, and preserved.

Contractors shall investigate the causes of all incidents within seven days and shall, within two working days or as soon as reasonably practicable thereafter, provide Eskom with the results of the investigation and recommendations on how to prevent a recurrence.

Contractors must ensure that recommendations made during the investigation are complied with. Similarly, they need to have close-out sessions regularly to ensure that recommendations have been implemented. Copies of completed investigation reports shall be submitted to the relevant BU/OU where the incident happened.

 **Environmental, Occupational Health and Safety Incident Management Procedure 32-95**

### 6.2 Statistical safety performance

In Statistical performance reporting is a management tool for assessing an organisation's SHE performance in relation to good business practices.

The principal contractor shall provide SHE statistics at the end of each month of its own organisation as well as that of its appointed contractors.

The information shall be sent to the Eskom Safety Risk Department business unit to which they are contracted by the last working day of each month. The information required for statistical reporting shall include the following as a minimum:

- Name of contractor
- Incidents: fatalities, lost-time, medical, first aid, near misses reported
- The number of diagnosed and reported occupational diseases
- Manpower numbers per principal contractor and appointed contractor company
- Actual man-hours worked
- Status of incidents investigated and recommendations closed out
- Status of audits conducted and findings closed out
- Number of behaviour observations conducted versus planned
- Number of non-conformance reports closed out versus number of reports received

## Section 7: Emergency Preparedness and Response

Fire safety is an integral part of the general safety and protection of Eskom employees, contractors and members of the public (at Eskom facilities) against the effects of fire, heat and smoke. As a minimum, this is ensured by compliance with, and the application of, legislative and policy requirements.

### 7.1 Response plan

Contractors shall compile a project and site-specific emergency preparedness and response plan within the first week of the project's start. The plan must be implemented and communicated to all contractors and staff. Eskom has an established site emergency preparedness response plan. The contractor must have their own plan, which lines up with the BU plan, alternatively be a full member of the site's emergency plan coordinating team. In all cases there must be alignment which results in a single overarching plan for the site. Following is a list of minimum items that must be included in the emergency and response plan:

#### 7.1.1 Basic content for fire safety plan

A description of the main features for the specific site, indicating the following:

- Building(s), layout, overall size, number of floors (relative to a site plan)

- List and location of fuel sources of interest (for example, flammable liquids)
- Fire precaution and immediate response for each specific work area and hazard
- Schedule of formal and informal training related to fire precautions and immediate response
- Schedule of inspections
- Risk assessments for existing hazards and approach regarding risk assessments for new or changed hazards
- Specific fire protection measures, hydrant and hose reel layouts
- Fire protection systems (active systems), that is, water-based systems, gas systems, special systems, ventilation arrangements (smoke extraction)
- Fire detection systems, coverage, control points,
- Site emergency arrangements,
- Contact information for emergency services and essential staff, for site

### 7.2 Emergency care

A list of emergency contact numbers shall be posted in conspicuous places and at telephone points. Contractors shall ensure that their employees and appointed contractor employees are familiar with the emergency numbers.



### 7.3 Emergency drills

Where the site-specific Eskom plan is used, Eskom will hold periodic emergency drills, in which the contractor is expected to participate. If the contractors do not utilise the Eskom site-specific emergency preparedness response plan, they shall initiate their own emergency drills. If drills are done at an Eskom site, contractors will be required to obtain permission from the Eskom project manager/BU manager to hold the drill.

Where projects/sites are standalone, contractors shall hold their own emergency drills. Ideally, emergency drills should be held annually, dependent on changes of circumstances and/or high turnover of staff, in which case drills must be held more frequently. All emergency drills shall be recorded and records filed in the site's SHE file.

### 7.4 Fire risk management

Contractors shall compile a site fire safety plan for all their work sites. The plan must be developed during the site establishment phase and must list the types of fire equipment that will be required, which will depend on the types of work/tasks done and the storage/handling of flammable substances.

Where work is carried out on existing building alterations, pre-existing fire systems in the buildings shall be maintained during construction, whenever possible. Any changes shall be approved by the Eskom project manager.

### 7.5 Emergency medical planning

The contractor shall ensure that sufficient medical emergency arrangements are made for possible incidents occurring at the work site after normal working hours, irrespective of whether they are work-related or not.

Emergency Planning 32-123  
Fire Risk Management 32-124





## Section 8: Alcohol and Substance Abuse

Eskom is committed to protecting the safety, health, and well-being of all employees and other individuals in the workplace.

Eskom acknowledges that alcohol and substance abuse poses a significant threat to the business. Eskom is, therefore, entitled to take reasonable steps to ensure that intoxicated persons are identified and prevented from entering, or working on, any of Eskom's equipment and premises.

### 8.1 The rules in relation to contractors, consultants and visitors

- No person (including a contractor, consultant, or visitor) who is under the influence or who appears to be under the influence of intoxicating liquor or drugs will be permitted to enter Eskom's premises/site, to remain on Eskom's premises/site, or to remain in control of Eskom's equipment/ vehicle or operate any machinery for Eskom while under such influence. Such a person shall be refused entry to, or be removed from, the premises/site.
- No person shall bring any intoxicating substances onto any of Eskom's premises/ sites.
- No person may allow another person to consume, or engage in any improper or unlawful activity related to, alcohol or drugs/controlled substances while at an

Eskom site or on Eskom business.

- All persons shall comply with any reasonable request to undergo ad hoc or specific alcohol and drug testing while on Eskom premises or performing work for Eskom.
- Refusal to comply with such a request may result in an adverse inference being drawn, which is that the person is under the influence.
- A contractor employee who refuses to be tested by Eskom in the presence of reasonable suspicion will be sent home. The tester shall inform the employee's supervisor or any other supervisor on-site, in the absence of the employee's supervisor.
- If a contractor employee is identified as being under the influence, the tester shall inform the employee's supervisor or any other supervisor on-site, in the absence of the employee's supervisor. Any employee who is under the influence shall be sent home immediately.
- Contractor employees may possess prescription medication in its original container, to be administered only to the person for whom it is prescribed, and the supervisor must be informed if any person is on medication.

 Substance Abuse Procedure 32-37



## Section 9: Personal Protective Equipment (PPE)

- Appropriate and suitable risk-based PPE shall be provided by the contractor, where required. The contractor shall take steps to eliminate or mitigate any hazard or potential hazard to the safety or health of employees before resorting to PPE.
- Contractors' employees on the site, including visitors, shall use the relevant risk-based and Eskom-requisite PPE at all times. Contractors are required to provide casual visitors to the site with the appropriate PPE for their use while on, and for the duration of their visit to, the site. If the visitor is a regular visitor, he/she shall provide his/her own PPE and conform to the site's PPE requirements.
- All users of PPE shall be trained in the use, care, and maintenance of such PPE and be assessed and declared competent for the specific PPE. Documented training records for all training shall be maintained. Contractors shall provide a detailed programme on the issuing, maintenance, and replacement of PPE for all their employees on-site.
- Symbolic signs indicating the type and use of PPE shall be appropriately placed at strategic points on the site/project for that hazard or those hazards. Such PPE shall be worn. Any person not complying with the requirement shall be removed from site until such time as he/she conforms. Strict

non-compliance/disciplinary measures shall be administered for any employee not complying with the use of PPE.

### 9.1 Safety boots/shoes, hardhats and eye protection

Suitable safety shoes/boots, hard hats with chin straps, eye protection, and safety glasses shall be worn when job-specific hazards dictate. All construction projects shall be safety-boot-/shoe- and hard-hat-compliant. Hearing protection shall be worn when entering all operational areas and areas posted as hearing protection areas or when using equipment that produces noise levels in excess of 85 decibels (dBA).

### 9.2 Respiratory protection

Respiratory protection shall be worn when performing tasks that dictate the need for such equipment. Risk assessments shall be carried out to determine the correct respirator to be issued for the hazard and shall be properly maintained to ensure its effectiveness and ability to limit the risk exposure.

### 9.3 Fall protection equipment

Where possible, efforts should be made to provide a safe working platform for employees before resorting to the use of a fall arrest system. Where this is not practicable, suitable fall arrest equipment shall be provided.







When working at height, appropriate PPE, as determined by the risk assessment, shall be used at all times. Failure to use fall protection will be viewed as a serious breach of Eskom and legal requirements.

The minimum PPE that shall be worn is as follows, including, but not limited to, the fall arrest system:

- Appropriate height safety equipment
- Hard hat with chin strap secured
- Safety shoes/boots
- Gloves
- Overalls

 PPE Specification 240-44175132



## Section 10: Permit to Work (PTW)

Safe systems of work are crucial in work such as construction and maintenance where potential risks are high. Careful coordination of activities and precautions is essential to safe working and can be achieved by implementing formal controls through a permit-to-work system. Work permit system is designed primarily for the safety of the workers.

### 10.1 General requirements

- Pre-task planning, pre-task risk assessment, on-site-risk assessments, task feedback (debriefing session) and pre-work checklists must be completed for all work under any permit to work. Risk assessments and prework checklists must be completed for all work under any permit to work.
- Permit-to-work forms, sanctions for tests, workers' registers, risk assessment(s), prework checklist(s), limited access register(s), gas test certificate(s), environmental certificate(s), and hot work approval(s), plus any other related documents, where relevant, must be attached to all cleared permit forms. These documents will be filed for one year and be available for incident investigation and audit purposes.

### 10.2 Permit-to-work application

- The application for a permit to work must be completed by the responsible person or a person who has passed the theory

section of the Plant Safety Regulations Course.

- Any special requirements such as hot work or work in a confined space must be stated.
- Any special endorsements must be stated where applicable
- The authorised/responsible person or person acting on his/her behalf must complete the permit-to-work application section, stating:
  - the plant requiring isolation, in detail;
  - the site (name) of the workplace
  - the scope of the work to be carried out, in detail;
  - the points of isolations, if applicable;
  - any special requirements, including identified dangers and hazards; and
  - the time and date on which the work is to be commenced.
- signatures of both parties involved
- The risk assessment number must be entered prior to PTW printing.
- Work permit forms must be made out in duplicate
- Copy of the work permit must be kept by the authorised person, the original of the work permit must be given to the responsible person for the following reasons:
  - It is his/her only guarantee that the apparatus will remain safe to work on
  - No alterations can be made to the work permit



- The apparatus/plant cannot be returned to service until such time he/she has signed the clearance off and returned the original of the work permit form to the authorised person

### 10.3 Requirements for contractors

Contractors shall adhere to the approved Eskom permit-to-work system to control identified high risk activities.

If the type of work requires working with low voltage, medium voltage, or high voltage, the contractor employees who are working with such voltages shall be trained, competent, assessed, and authorised, in writing, to perform the duties of an authorised or a responsible person as contemplated in the applicable Eskom regulations, e.g. ORHVS.

A responsible person as per Operating Regulations for High Voltage Systems (ORHVS) – means a person who has been authorised to be responsible for ensuring that the work on the apparatus covered by a work permit can be, carried out with safety and within the terms of these regulations.

A person who is authorised as a responsible person is authorised to:

- Accept a work permit to work on the apparatus or plant and;
- Supervise people working on the apparatus/plant

Apparatus /plant to be worked on must be made safe first before issuing the work permit to the responsible person.

Note:

- The person in charge of supervision is responsible to complete the workers register and keep it current
- He/she is also responsible for supervision in terms of the Occupational Health & Safety Act (Act 85 Of 1993) Section 8(2) (l)

The following are some listed work tasks that could require permits to work:

- Work in confined spaces
- Roof work
- Welding, flame cutting, soldering, or similar work (usually called hot work)
- Working on pressurised pipes
- Electrical installations

The Eskom project manager shall provide the contractor with information regarding the process to follow in obtaining a permit-to-work for the work that the contractor intends to carry out.

### 10.4 Environmental approvals

Contractors shall ensure that all the required environmental approvals are in place before they commence with any activity. Confirmation shall be obtained through the relevant Eskom environmental advisor. Listed on the next page is an indication of the type of environmental approvals required:



Reference number of Act in Universe	Applicable section number	Section description
National Environmental Management: Air Quality Act	Air emission licence (AEL)	Limits set in AEL need to be complied with.
National Environmental Management: Air Quality Act	April 2010 Minimum Emission Standards	Standards related to emissions from our power stations for “existing plant” that come into effect in April 2015 and more stringent “new plant” standards that come into effect in April 2020.
National Water Act: integrated water use licences – Eskom power stations and projects that affect watercourses	Section 21	<p>Possession of a water use licence issued by the Department of Water Affairs (DWA) for use of water as well as for projects that impact a watercourse.</p> <p>Section 21 of the National Water Act indicates that “water use” includes:</p> <ul style="list-style-type: none"> <li>• taking water from a water resource (section 21(a));</li> <li>• storing water (section 21(b));</li> <li>• impeding or diverting the flow of water in a watercourse (section 21(c));</li> <li>• engaging in a stream flow reduction activity contemplated in section 36 (section 21(d));</li> <li>• engaging in a controlled activity that has either been declared as such or is identified in section 37(1) (section 21(e));</li> <li>• discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall, or other conduit (section 21(f));</li> <li>• disposing of waste in a manner that may detrimentally impact a water resource (section 21(g));</li> <li>• disposing, in any manner, of water that contains waste from, or that has been heated in, any industrial or power generation process (section 21(h)); and</li> <li>• altering the bed, banks, course, or characteristics of a watercourse (section 21(i)).</li> </ul>

Reference number of Act in Universe	Applicable section number	Section description
National Environmental Management Act: Regulations – listed activities that require an environmental authorisation before commencement (EIA)	Section 24	To obtain an environmental authorisation for proposed activities that are listed in the Regulations as well as compliance with the conditions set out in the environmental authorisations.
National Environmental Management:Waste Act: Regulations – listed activities that require a waste licence before commencement (EIA)	Section 19	To obtain a waste licence for proposed activities that are listed in the Regulations as well as compliance with the conditions set out in the environmental authorisations.
National Forests Act, Act No. 84 of 1998, section 15	Section 15	To obtain a licence before any protected tree or indigenous tree in a natural forest is cut or pruned.
National Heritage Resources Act No. 25 of 1999 (NHRA) – section 38 (protection and preservation of South Africa's national heritage)	Section 38	Notification to the relevant heritage resources agency for linear activities > 300 m in length and other activities. This results, in most cases, in a heritage impact assessment having to be undertaken.
National Environmental Management:Waste Act	Section 19	Classification of ash and potential need for possession of a waste licence for ashing facilities issued by the Department of Environmental Affairs (DEA).  Norms and standards apply to any person who stores general or hazardous waste in a waste storage facility. A new waste storage facility must be registered with the competent authority within 90 (ninety) days prior to the construction taking place.

## Section 11: Hazardous Substances Management

Contractors shall manage the handling of hazardous chemicals and/or materials in terms of the legislative and Eskom requirements.

Prior to any hazardous chemical substances (HCSs) being brought onto the site or produced on the site, contractors shall supply the Eskom project manager with the following:

- Material safety data sheets (MSDSs) 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
- No HCS shall be brought onto the site until the Eskom project manager's approval has been received. All HCS containers are to be clearly labelled with

the contents. Containers that are not labelled shall not be permitted on any sites.

- No HCS is to be stored in areas where there are food or drink consumption and storage.
- Users of an HCS shall wear/use the correct PPE as per the HCS MSDS sheet.

### 11.1 Training

Users of HCSs are to be adequately trained in the handling and emergency procedures of the HCS that they are handling. The appropriate HCS registers shall be maintained and be available on-site by the employee appointed for the handling and storage of HCSs.

### 11.2 Disposal

Where waste/containers are disposed of, only sites specifically designated for this purpose in terms of Environmental regulations, shall be used. Contractors shall provide Eskom with waste manifests and certificates of safe disposal.





## Section 12: Flammable and Combustible Liquids

- Proposals to store fuel on site must have written approval from the Eskom project manager. The volumes of fuel allowed to be stored will depend on site conditions and statutory regulations.
- A maximum of 40 litres of fuel is allowed to be stored. Anything greater than 40 litres is to be stored in a flammable/combustible liquid store.
- Adequate numbers of dry chemical fire extinguishers shall be provided, installed, and maintained.
- Before a machine is refuelled, the motor must be stopped. Refuelling shall take place in designated safe areas, and appropriate warning signs shall be 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, that is:
  - "Flammable Liquid";
  - "No Smoking";
  - "No Naked Flames"; and
  - "Hazardous Chemical Identification".
- Adequate firefighting equipment must be available.
- Diesel tanks will be installed in a bunded area; the bunded area must be able to contain 110% of tank capacity.
- The bunded area shall be of a concrete or steel construction.
- The bunded area shall have a drain valve.
- No other material/equipment shall be stored in the bunded area.



## Section 13: Compressed Gas Cylinders

### 13.1 Requirements for gas cylinder storage

The following requirements must apply to all gas cylinder storage:

- 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.
- The enclosure should be kept locked.
- All danger signs must be prominently displayed at storage areas, for example:
  - "No Smoking"; and
  - "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 the 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 an aisle in-between for easy removal in the event of fire.
- Mark empty cylinders clearly, and move to approved storage areas.
- Adequate firefighting equipment must be available.
- Cylinders for different gases must be stored separately.
- Flammable and oxidising gases must not be stored together; greases and oils must never be allowed to come into 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 must have flashback arrestors fitted on both sides.





## Section 14: Housekeeping

- The principal contractor and his/her contractor shall maintain a high standard of housekeeping within the site. Prompt disposal of waste materials, scrap, and rubbish is essential.
- Adequate care must be taken by the contractor to ensure that storage and stacking are correctly and safely carried out.
- Before stacking any material, the principal contractor, contractor, or his/her employees must consult the Eskom project/site manager for allocation of a stacking area.
- Materials/objects shall not be left unsecured in elevated areas; falling objects may cause serious injuries/fatalities.
- Nails protruding through timber shall be bent over or removed so as not to cause injury.
- All packaging material, including boxes, pallets, crates, etc., must be removed from the work area immediately.
- Dining rooms shall be kept in a clean and tidy manner.
- On completion of his/her work, the contractor is responsible for clearing his/her work area of all materials, scrap, temporary buildings, and building bases to the satisfaction of the client/agent.
- In cases where an inadequate standard of housekeeping has developed, compromising safety and cleanliness, everyone 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/her subcontractor 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 viewing.



## Section 15: Portable and Pneumatic Tools

All hand tools (hammers, chisels, spanners, etc.) shall be recorded in a register and inspected by the construction manager/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 by users prior to use.

### 15.1 Safe use of tools

- The revolutions per minute shall be measured in accordance with the manufacturer's specification.
- If the revolutions exceed the manufacturer's specification, the tool shall be taken out of service and replaced/repared.
- Tools with sharp points in toolboxes shall be protected with a cover.
- All files and similar tools shall be fitted with handles.



- No makeshift tools will be permitted 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 obtaining permission from the client's/agent's representative for use.
- When using the interlocking type of connection on a compressed air line, the couplings shall be secured together with wire clips or similar devices to prevent accidental disconnection. The use of cable ties is not permitted.
- Compressed air shall NOT be used for any other purpose than that for which it is provided.
- Employees shall NOT use compressed air to remove dust or other debris from clothing.
- Air hoses are to be orderly routed and elevated, if required, in order to prevent tripping hazards or being damaged by vehicles or mobile equipment driving over them.



## Section 16: Welding, Cutting and other Hot Work Operations

- Contractors shall ensure that no welding or flame cutting operations is undertaken, unless -
  - the employee operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards which may arise from its use;
  - effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of employees performing such operations, as well as against heat, flying particles or dangerous radiation;
  - leads and electrode holders are effectively insulated; and



- the workplace is effectively partitioned off where practicable and where not practicable all other persons exposed to the hazards are warned and provided with suitable protective equipment.
- Contractors shall ensure that no welding or flame cutting operations is undertaken in a confined space, unless -
  - effective ventilation is provided and maintained; or
  - masks or hoods maintaining a supply of safe air for breathing are provided and used by the employees performing such operations.
- Contractors shall ensure that no electric welding is undertaken in wet or damp places, inside metal vessels or in contact with large masses of metal, unless;
  - the insulation of the electrical leads is in a sound condition;
  - the electrode holder is completely insulated to prevent accidental contact with current-carrying parts;
  - the welder is completely insulated by means of boots, gloves or rubber mats; and
  - at least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations



- Contractors shall ensure that no welding, flame cutting, grinding, soldering is undertaken in any tube, tank, drum, vessel or similar container where such container -
  - is completely closed, unless a rise in internal pressure cannot render it dangerous; or
  - contains any substance which, under the action of heat, may -
    - ignite or explode; or
    - react to form dangerous or poisonous substances, unless a person who is competent to pronounce on the safety thereof has, after examination, certified in writing that any such danger has been removed by opening, ventilating or purging with water or steam, or by any other effective means.



- Where hot work permits are required, such permits shall be issued by an authorised person prior to the start of any such work. When welding or cutting work is performed, an adequate number of approved fire extinguishers shall be provided. Contractors shall provide a 30-minute fire-watch after the operations have ended to ensure that no fire starts. Only then can the permit be closed and signed off.
- Prior to cutting or coring of concrete suspended slabs, cast-in-place or pre-cast walls, and slab-on-grade, contractors shall either X-ray the slab or, if X-ray is not feasible, provide other approved alternative methods for determining live electrical wiring concealed in the slab or walls. Signage shall be posted to ensure that no one enters the affected area during X-raying.



## Section 17: Working at Height


When working at height, all precautions, including, but not limited to, Eskom and legislative requirements, shall be taken to prevent incidents. All users of height safety equipment for working at height shall be trained, assessed, and declared competent for the specific height safety equipment and associated structures.

### 17.1 Fall protection plan

A task-/job-specific fall protection plan shall be developed and approved by an appointed competent person for any activity where there is a risk of a fall. The fall protection plan shall include a task-/job-specific risk assessment and requirements relating to the following:

- Training programme for employees working from a fall risk position
- Appointments and authorisations
- The procedure addressing the inspection, testing, and maintenance of all fall protection equipment
- The process for evaluation of the employees' medical fitness necessary to work in a fall risk position and the records of this (medical surveillance programme)
- Equipment use and specifications
- Fall prevention, fall arrest, and fall rescue procedures
- Method statements or safe work procedures/ task analysis/work instruction

- The fall protection plan and its requirements shall be integrated in the SHE plan. Adherence to the fall protection plan is mandatory. Where changes are made, the fall protection plan shall be suitably amended in accordance with the risk assessment, equipment technology, standards, and legislation.
- While work is in progress, adequate warning signs and/or barricades shall be used in all areas where there is a risk of persons being injured by materials or equipment falling from the work area. Barricades should be continuous and easily visible.

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## Section 18: Ladders

### 18.1 Safe use of ladders

- Contractors shall ensure that every ladder is constructed of sound material and is suitable for the purpose for which it is used, and -
  - is fitted with non-skid devices at the bottom ends and hooks or similar devices at the upper ends of the stiles which shall ensure the stability of the ladder during normal use; or
  - is so lashed, held or secured whilst being used as to ensure the stability of the ladder under all conditions and at all times.
- No contractor shall allow any employee to use a ladder, or permit it to be used, if it -
  - has rungs fastened to the stiles only by means of nails, screws, spikes or in like manner; or
  - has damaged stiles, or damaged or missing rungs.
- Wooden ladders shall be constructed of straight grained wood, free from defects, and

with the grain running in the length of the stiles and rungs; and

- the ladders are not painted or covered in any manner; unless it has been established that there are no cracks or other inherent weaknesses:
- Provided that ladders may be treated with oil or covered with clear varnish or wood preservative
- When work is done from a ladder, contractors shall -
  - take special precautionary measures to prevent articles from falling off; and
  - provide suitable sheaths or receptacles in which hand tools shall be kept when not being used.





## Section 19: Scaffolds

Fall from elevation has been identified as one of the highest causes of fatalities and lost-time injuries at construction sites in Eskom. Contractors shall ensure that effective systems are implemented to prevent injuries resulting from falls from heights.

### 19.1 Scaffold design and erection

- Scaffolds must be designed, built, inspected, and tagged by trained, competent persons in accordance with SANS 10085 requirements.
- Carefully plan each application to ensure that scaffolds are used where required and that scaffolds conform to the applicable scaffold erection requirements.
- Makeshift platforms are prohibited.
- Do not use scaffolds for storing material, except material being used while on the scaffold.
- Do not allow tools or material to accumulate on scaffolds.
- Never overload a scaffold.
- Immediately replace weakened or damaged scaffolds.

### 19.2 Use of scaffolds

- Follow the fall protection plan requirements when working on scaffolds.
- A competent person must inspect scaffolds before work begins.
- Prior to use, a competent person must inspect scaffolds on which weakened or

damaged weight-bearing parts have been replaced.

### 19.3 Scaffold tags

- The contractor erecting the scaffold must attach a tag to a completed scaffold at the point of access to signify that the scaffold was designed and erected by trained, competent persons and is safe for use.
- The scaffolding must be inspected every seven days, and such information must be displayed on the scaffold tag for safety purposes.



## Section 20: Electrical Safety

All temporary and permanent electrical work installations shall have a certificate of compliance (COC) for legal electrical installations.

- Only qualified electricians trained in electrical safety familiar with the requirements of the Occupational Health and Safety Act and Electrical Installation Regulations shall be allowed to perform electrical work, including repairs, on electrical equipment.
- No employee shall be allowed to work close to unprotected electrical power circuits, unless the area has been barricaded or the employee is protected against electrical shock by de-energising the circuit, grounding it, locking out and tagging the device, and protecting the individual by effective insulation or providing protection by other means.
- All switches shall be enclosed and grounded. Panel boards shall have provisions for closing and locking the main switch and fuse box compartment.
- Extension cords used with portable electric tools and appliances shall be in good condition without any damage.
- Suitable means shall be provided for identifying all electrical equipment and circuits, especially when two or more voltages are used on the same job. All circuits shall be marked for the voltage and the area of service they provide.
- Electrical cords shall be covered, elevated,

or otherwise protected from damage that could create a hazard to employees or other persons in the area.

- In areas where cables or cords enter or pass through walls, panels, or boxes, appropriate covers shall be used.
- Temporary lighting will be equipped with guards to protect the bulb and wiring and will be equipped with three-wire insulated cable.
- The use of extension cords shall be temporary and limited as much as possible.
- All electrical equipment (including hand tools and extension cords) must be visually inspected prior to use and monthly to ensure proper operation and freedom from electrical shock hazards. All inspections and checks must be documented.
- Equipment with defects shall be removed from service until repaired.





## Section 21: Working in confined spaces

A confined space is an enclosed area that has a limited means of entrance and is subject to the accumulation of toxic or flammable contaminants or has an oxygen-deficient atmosphere. The hazards associated with confined spaces include entrapment, leading to death.



### 21.1 Requirements for work in confined spaces

The requirements as listed in General Safety Regulation 5 shall be adhered to.

- Entering any confined space shall only be done after it has been tested and evaluated and found to have sufficient clean air and to remain so through the duration of work carried out in it.
- All tests and evaluations of air quality shall be carried out by competent persons, and results shall be recorded in writing.
- Where insufficient clean air is present, the necessary precautions and breathable air shall be supplied for the duration of the task.
- When working in pipes and/or chambers where there is more than one pipe or chamber, appropriate isolation of the other pipes/chambers shall be carried out. If the process of isolating such pipes/chambers cannot be carried out and there is a possibility of dirty air entering, all workers shall be issued with, and use, breathing apparatus. Appropriate rescue ropes shall be attached to each worker, and there shall be a sufficient number of employees on standby in the event of any emergency.



## Section 22: Barricading

In areas where the restriction or prevention of unauthorised persons/members of the public/passers-by is required, the barricading requirements shall be adhered to. Requirements for barricading (if risk assessments require more stringent mitigation measures, those stringent measures shall apply):

- The name and contact details of the person and supplier company responsible for the barricading shall be posted on the actual barricading.
- All barricading shall be of the rigid type.
- All openings and edges shall be barricaded with solid barricading to withstand an impact of at least 100 kg.
- Only solid (scaffolding or standalone) barricading will be allowed.
- Bollards (containers filled with liquid) can be used as solid barricading (exempted for use inside power plant units).



- There must be 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 shall pre-plan the delivery of floor grating, stair treads, landings, and handrails to ensure safe access and protection for persons working on structures.
- Where such floor, grating, stair treads, landings, and handrails have been placed in situ, these items shall be secured during fitment to prevent accidental movement and/or intentional removal.
- Danger or demarcation tapes shall not be allowed for the purpose of barricading
- The contractor's barricading standard shall accompany the SHE plan.



## Section 23: Working in close proximity of public roads

Due to the nature of the work, the safety of contractor employees and other road users is of paramount importance. The task to be performed shall be properly planned with all the role players. Depending on the category of road to be worked on, the relevant traffic authorities must be informed of the task.

- High-visibility vests shall be worn.
- If the authorities need to be in attendance, no work shall start until such time as the authorities arrive on-site, irrespective of whether outages are planned.
- Work areas shall be adequately barricaded so as to prevent unauthorised access. This rule applies for normal and breakdown work.

The following, from a road safety perspective, shall be carried out:

### 23.1 Planning work and resources

- Some of the resources include:
  - traffic signs;
  - red flags;
  - road cones;
  - amber rotating lights (on vehicles and on "Workmen ahead" traffic signs); and
  - reflective vests/bibs.

- Notifications of proposed work to:
  - traffic;
  - municipality
  - Telkom, if required; and
  - landowner(s).
- Determine a strategy to control members of the public.
- Confirm with the Traffic Department whether they will control the traffic at the work site.
- If traffic officers will be on-site to control the traffic, determine and document traffic control measures that will be implemented.
- Ensure that all parties involved sign the traffic control agreement. If traffic officers will not be on-site, ensure that there are sufficient flagmen positioned on both sides of the workplace to warn oncoming traffic.



## Section 24: Construction Vehicles and Mobile Plant

Inadequate and unsafe use of construction vehicles and mobile plants has resulted in fatalities on Eskom construction sites, and contractors shall ensure that both legal and Eskom requirements are complied with when using construction vehicles and mobile plants during projects.

### 24.1 Design, safe use, and competence

- Construction vehicles shall be appropriate and suitable for particular allocated tasks/activities/projects. Vehicles and/or equipment shall not be used for any other tasks/jobs for which they have not been designed and manufactured.
- Construction vehicles in use shall be in a good condition and roadworthy. Under no circumstances will ad hoc modifications to any vehicle be accepted and/or used throughout any project.
- Heavy construction vehicle parking sites or driveways should be designed in such a way that no reversing is required. Should there be a need to reverse, it shall be done with the aid of a flagman or banksman.
- It is recommended that reverse cameras be fitted to heavy construction vehicles where reversing is inevitable and problematic.
- Drivers and/or operators shall have the specific required code of national driver's

licence for that particular construction vehicle and be in possession of a company driver's permit.

- Competence requirements for the category of construction vehicle the driver/operator is operating shall be met.
- Competence training certificates of drivers/operators for the specific vehicles shall be available for audit purposes.

### 24.2 Visibility on construction sites

- Where required to be worn, high-visibility warning clothing shall comply with SANS 5047. Additionally, operators, flagmen, banksmen, signalmen, or pointsmen shall wear LED-illuminated high-visibility clothing, preferably a different colour to general use.
- Establish a traffic management plan that addresses movement of vehicles and people in areas under the site's control.

### 24.3 Transportation of workers

Eskom has experienced several fatal incidents during transportation of construction workers. As a result, contractors shall **ensure that no employee or any other person, when on an Eskom site and/or performing work for Eskom, will be allowed to be transported on the back of an open bakkie.**





## Section 25: Lifting Machines

### 25.1 General requirements

- If it is the contractor's intention to use lifting machines on-site, this should be indicated in the contractor's SHE plan. Any previous inspection records must accompany the plan, so that the Eskom project manager can ascertain that previous inspections have been carried out when equipment is brought onto site and that it appears to be in a serviceable condition.
- A risk assessment shall be conducted prior to commencing with the task to identify the risk involved, and appropriate mitigation measures shall be put in place in the form of a "lifting safety plan".
- The project contractor should verify whether the lifting machines have been examined and whether a performance test has been done prior to the machinery being used on the site. Similarly, he/she shall check any previous inspection records and ensure that regular inspections are conducted throughout the project.

### 25.2 Operator's competence

- All lifting machine operators shall be competent to operate the specific type of lifting machine they intend to operate. They shall be in possession of a valid operator's permit, stating the type of lifting machine.
- Whenever use is made of an external contractor to do lifting work, the project

contractor shall ensure that the operator is competent. If the project contractor is satisfied with the operator's competence after looking at his/her portfolio, he/she shall issue a temporary permit to the operator.

- Operator training shall have been done in accordance with the code of practice by a training provider registered with the Department of Labour.

### 25.3 Design, use, and maintenance

- A risk assessment should be conducted prior to starting with the task.
- Prior to every use of any lifting machines or tackle, the operator shall inspect it/them for serviceability.
- 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 three months.
- All lifting machine and tackle inspection and maintenance shall be recorded in a register.
- All hooks shall be fitted with a safety latch/ catch. Where the safety latch/catch is missing/damaged, the lifting machine will be taken out of service until such time as it has been repaired. Securing a load by



tying the throat of the hook will not be accepted, contrary to legislation.

- A management control system should be implemented to ensure that only an operator who is competent can draw lifting machines from a store/warehouse.
- All lifting machines and tackle should be conspicuously and clearly marked with identification particulars and the maximum mass load for which they have been designed.
- No person shall be moved or supported by means of a lifting machine, unless such a machine is fitted with a cradle/cage so designed and manufactured and approved by an inspector.

### 25.4 Mobile and tower cranes

- When using tower cranes, account should be taken of wind forces prior to the start of, and throughout, operations. For tower cranes, when being erected, it should be taken into account that they are a safe distance from excavations being made. When working in close proximity (with tower cranes) to power lines, the contractor shall apply for a permit. Refer to the Eskom Plant Safety Regulations and/or Operating Regulations for High-voltage Systems and Electrical Machinery Regulations 19(4) and 19(5) of the OHS Act.
- When positioning any mobile and/or tower cranes, account should be taken of the bearing capacity of the ground.

- When using any form of mobile crane fitted with outriggers, such outriggers shall be used in terms of the manufacturer's operating requirements.

### 25.5 Precautions for suspended loads

- Contractors and their employees shall not be permitted to work on, or walk under, suspended loads or between loads and objects where there is a possibility of being crushed if the load should swing or fall.
- Crane operators are not permitted to swing loads over areas where employees are working. Employees shall not pass or work under the boom of any crane or suspended load.
- All crane operators shall be medically fit to operate; part of the fitness test shall include hand/eye coordination and depth perception.
- Where possible, guide ropes are to be used to prevent loads from swinging. Risk assessments shall dictate where guide ropes shall be used.
- A copy of the risk assessment should be kept in the file.

### 25.6 Material hoists

- Where "material hoists" are used, all the requirements in terms of construction regulations shall be implemented and adhered to. No persons are permitted to be carried in or on any material hoist.





## Section 26: Machinery, Equipment, and Tools

- Contractors shall ensure that all machinery, tools, and equipment brought onto site by their employees and appointed contractors are appropriate to be used for the tasks to be performed and maintained in a good condition.
- The contractor shall ensure that all machinery and equipment are listed on an inventory list, which list is handed to Security, with a copy kept on-site for site security purposes.
- All machinery, tools, and equipment are to be inspected at least monthly or as required by legislation, risk assessments, and manufacturer's requirements. Registers of tools and equipment shall be kept in the SHE file. The equipment should be numbered or tagged, so that it can be properly monitored and inspected.
- All machinery, tools, and equipment (where required) shall have the necessary approved test or calibration documentation prior to being brought onto the site and throughout the project. The records shall be kept up to date and shall be filed in the site SHE file.
- All employees/operators shall be trained in the use of, and be competent when operating or using, machinery, equipment, and tools.

### 26.1 Fuel-driven equipment

- All fuel-driven equipment shall be inspected by the contractor's competent person prior to being brought onto site or immediately thereafter and prior to being used for serviceability and meeting requirements.
- All fuel-driven equipment shall be properly maintained in accordance with the manufacturer's and legal requirements.

### 26.2 Client/agent rights

- The client/agent reserves the right to inspect items of plant and/or equipment brought to site by contractors for use on the contract. Should the client/agent find that any item is inadequate, faulty, unsafe, or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the client/agent shall advise the 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.



## Section 27: Machine Guarding

- All machines driven by means of belts, gear wheels, chains, and couplings shall be adequately guarded.
- 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. A machine is guarded when persons cannot gain inadvertent access to the moving parts.
- Where machinery has guards fitted or is surrounded by a fence/barrier to prevent accidental contact, the use of such machinery is prohibited if the guard or fence or barrier has been removed or tampered with.
- Guards are to prevent limbs or loose clothing from getting caught under, into,

above, or around the dangerous moving parts.

- A risk assessment should be conducted, in writing, to ensure that all machines and tools that require a guard/fence are fitted with a suitable guard/fence erected. The assessment should be kept in the safety file.
- Guards should form a permanent part of the machine or tool and be easy to remove for maintenance purposes, be non-corrosive, be rigged correctly, and, as far as reasonable, be heat-resistant.



## Section 28: Excavations Work

### 28.1 Notification and authorisation

- Authorisation for the digging of excavations or driving a peg, pile, or spike into the ground by the contractor may not commence without written authorisation from the client's/agent's representative, which will be in the form of the SHE plan and scope of work.
- In built-up/urban areas, prior to commencing work on any excavation or trench, utility owners and/or local authorities shall be contacted and advised of the proposed work and to determine the location of all underground installations, that is, sewer, telephone, water, fuel, electric, etc. installations. Overhead hazards shall be assessed and dealt with prior to commencement of work.

### 28.2 Identification of underground installations/services

- In rural areas, underground installations shall be identified by the relevant surveying department. Irrespective of where identification is or is not made, the judgement on the part of the excavation supervisor shall also be taken into consideration. Where possible, utility owners and/or local authorities should be contacted and advised of the proposed work and to determine the location of any possible underground installations.

### 28.3 Supervision and safety inspections

- All excavation work shall be carried out under the supervision of a trained competent person, who shall be appointed in writing.
- Prior to excavating ground, the stability of the ground shall be evaluated to ascertain what precautions shall be taken during and after the excavation to make it safe to work on or in.
- During excavation, precautions shall be taken to prevent the collapse of any soil or debris from falling onto any workers in it.
- No material is to be stacked/stored near the excavation edges.
- All excavations shall be on register and inspected daily by the excavation supervisor before work commences after inclement weather, after blasting operations, after unexpected fall of ground, and after substantial damage to supports. He/she shall declare the excavation safe and note this in said register.

### 28.4 Barricading requirements

- All excavations done by contractors are to be barricaded with suitable barricading material to prevent accidental access. If left open at night, where there is personnel movement, appropriate warning signs and flashing warning lights shall be displayed in suitable positions to warn any persons



approaching the area of the location and extent of any excavation.

- Barricading shall be strong enough to withstand persons and/or animals breaking through it.
- Danger tape is a warning and not a form of barricade.
- Barricading shall be placed as close as reasonably possible to the excavation and must be at least 1m in height.

### 28.5 Requirements for shoring

- No person is permitted to work in an excavation, unless it has been adequately shored or braced. Where such shoring or bracing is not required, the sides of the excavation shall be sloped to at least the angle of repose. Authorisation to work in such excavations shall only be given, in writing, by the excavation supervisor after he/she has declared it safe.
- Shoring and bracing shall be of sufficient strength to hold the force of the soil and/or material that is supporting it.
- If an excavation endangers the stability of buildings or walls, shoring, bracing, or underpinning shall be provided. Excavations and trenches that are adjacent to backfilled excavations or trenches or that are subject to vibrations from railway traffic, road traffic, blasting in opencast mining, or the operation of machinery (for example, mechanical shovels, cranes, trucks, etc.) shall be secured

by a support system, shield system, or other protective system (that is, sheet-pile shoring, bracing).





## Section 29: Asbestos Management

Asbestos work could vary between tasks and could include handling of asbestos-containing lagging or insulation material that may be disturbed by the demolition of, or structural alterations of, buildings or structures and cleaning of large asbestos spills. It includes work performed on asbestos cement products (ACPs), for example, sheeting, and other related products as well as asbestos that forms part of a structure of a workplace, building, plant, or premises.

### 29.1 Asbestos work

- Where the repair work is performed on asbestos material and asbestos cement sheeting and related products and does not result in removal or demolition of asbestos-containing materials, it shall only be regarded as purely routine maintenance work and not as asbestos work, as such. A safe work procedure must be available for the work to be performed. A standardised asbestos plan of work is required for such work and should be readily available on-site.
- Demolition work refers to any work that results in removal of asbestos-containing materials. This shall include demolition, alteration, stripping, removal, repair, gleaning of any spilt asbestos, or high-pressure water jetting of any structure containing asbestos lagging or insulation. An asbestos


contractor, approved by the Department of Labour, must conduct all asbestos work where any asbestos-containing material is to be removed.

**Note:** high-pressure jetting increases asbestos risk and significant airborne fibre disturbances and should not be allowed.

### 29.2 Asbestos demolition plan

The plan of work shall contain the following minimum information:

- Name and address of the person who intends to conduct the demolition work to be carried out
- Certificate of approval, issued by the Dept of Labour, as an asbestos contractor
- Name and address of the approved inspection authority that should approve the plan of work and take charge of air monitoring
- Air monitoring strategy
- Scope of the work to be performed (that is, removal of panels or lagging material). Clearly describe the nature of the work to be executed

 Requirements for Safe Processing, Handling, Storing, Disposal, and Phase-out of Asbestos and Asbestos-containing Material, Equipment, and Articles 32-303



## Section 30: Employee Welfare and Facilities

### 30.1 Drinking water

- Contractors must provide an adequate supply of potable water where employees are working.
- Clearly mark containers used for drinking water, and do not use them for other purposes.
- Potable drinking water taps shall be marked according to SANS 1186 requirements.

### 30.2 Facilities

- Contractors must provide sanitary facilities for employees according to the Occupational Health and Safety Act, Facilities Regulations.
- Arrangements to use Eskom's facilities can be made with the Eskom project manager.
- The following welfare facilities must be provided for in a clean and suitable condition, unless agreement with the client's/agent's representative has been confirmed regarding the use of existing facilities:
  - Shower facilities
  - Sanitary facilities
  - Changing facilities
  - Eating areas
  - Drinking water at strategic locations on site

- Water for drinking/consumption purposes shall be drawn only from taps in areas and ablution blocks and at points on site marked "drinking water".
- No equipment or system shall be connected to the drinking water system without prior approval of the client's/agent's representative.
- The contractor will be required to provide his/her own accommodation for the workers.





## Section 3 I: Environmental Management on Construction Sites

Effective waste management is required to ensure the prevention of pollution and ecological degradation. An integrated approach is required to minimise and manage waste and the associated risks in an environmentally acceptable and cost-effective manner.

Contractors shall manage waste in a responsible manner through the identification and proactive management practices of waste, such as the avoidance of waste generation and, where avoidance is not possible, the promotion of the conservation of resource use through effective and efficient resource utilisation, minimisation, reuse, recycling, and the disposal of the remaining waste.

### 31.1 Waste management plans

Contractors shall, where required, develop waste management plans, which shall include:

- the amount of waste that is generated;
- measures to prevent pollution or ecological degradation at applicable waste sites;
- objectives and targets, where applicable, for waste reduction, reuse, recycling, and recovery;
- the phasing out of the use of specified substances (for example, PCB, asbestos); and
- waste classification in order to determine the correct disposal method for industrial waste.

- performance measures need to be setup for office paper management

### 31.2 Requirements for waste disposal

- Only permitted/licensed waste disposal facilities are to be used.
- Personnel involved in waste management must be appropriately trained in aspects of waste management, including the requirements of the Occupational Health and Safety Act, No. 85 of 1993.
- Waste contractors transporting hazardous waste 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.
- Records must be maintained in accordance with applicable legislation.

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### 31.3 Dust and erosion control

- Creating uncontrolled dust by any means is not acceptable. It is the responsibility of the contractor to:
  - prior to starting work, explore methods



of dust control for work that is expected to produce dust; and

- take immediate action to control or eliminate dust that may be unintentionally created.
- Tree protection, erosion, and sediment control must be provided and maintained, where applicable.
- Contractors that create or could create tree loss or erosion must take the steps necessary to control and guard against these situations.
- Cutting of protected tree species requires a permit.

### 31.4 Water management on construction sites

Consult the site environmental manager. Effective water management is required to ensure the prevention of pollution and ecological degradation. An integrated approach is required to minimise and manage water and the associated risks in an environmentally acceptable and cost-effective manner. Contractors shall submit a plan indicating performance targets on water management.

Contractors shall manage water in a responsible manner through the identification and proactive management practices of water, such as the avoidance of pollution of water resources. Sewage management plans against contractor head count required requires to

be furnished to Eskom. Sewage placement of portable toilets and management and monitoring of sewage systems are required daily. The contractor is required to have sub-contracts in place for day to day management of loads and maintenance.

### 31.5 Hydrocarbons and Pollution

Hydrocarbon pollution is a major concern on construction sites. Vehicle maintenance schedules will form part of Eskom audit and inspections. Vehicle maintenance certificates will be provided by the contractor on inspection. Eskom reserves the right to prevent vehicles with oil leaks from entering the site. Consultants are to ensure that method statements are developed and approved by Eskom that will address mitigation measures for environmental protection during construction work.

### 31.6 Concrete and Pollution

Clear management reports and plans are to be presented to Eskom on the production and use of concrete on the construction site. Immediate plans are to be formulated for the reuse of concrete and off spec product. Concrete to be declared a waste product must be approved by the Eskom site environmental manager.

### 31.7 Lay Down Areas and Waste Management Areas

Contractors are to present plans on lay down

areas and planned moves thereof during longer duration construction projects. Clear distinction and documented control of products into and out of lay down areas and waste areas are to be maintained.

### 31.8 Route Planning

Contractors are requested to submit a safety and environmental route risk plan for Eskom related business. The accountability is for the contractor SHE and environmental manager to understand sensitive terrain and plan transport mitigation measures on and off site.

### 31.9 Water courses and wetlands

Consult the site environmental manager and environmental Legal instruments: The contractor environmental manager is to heed special environmental permits and licenses when working in these and other sensitive areas. Contraventions of environmental legislation are subject to personal and company fines and imprisonment.

## Section 32: Security Services

The Eskom contractor safety performance analysis has revealed fatal incidents of security personnel due to assault as one of the critical areas that should be given attention where such services are rendered on construction sites.

### 32.1 General requirements

- Prior to engagement, a technical evaluation of the contractor needs to be conducted by Eskom.
- Prior to starting a security service at Eskom premises, an initial risk assessment that identifies the hazards/risks has to be made available to the security service provider. This document has to be kept up to date by the Eskom manager responsible for the contract.
- In conjunction and in agreement with the Eskom security manager, the contractor needs to implement all identified mitigating factors, if applicable.
- Changes in risks, threats, and modus operandi of perpetrators will frequently be discussed with all security officials.
- A shift roster has to be introduced and used to deploy contractor staff.
- All security-related incidents have to be reported and investigated.

### 32.2 Statutory requirements

- As required by the Private Security Industry

- Regulatory Act (Act No. 56 of 2001; "PSIRA") and Regulations 10(1) and 10(2) or 10(4)(a) and 10(4)(b) on electronic format, as well as Regulation 10(7), a hard copy of the contract/service-level agreement has to be available at the security control office at all times for perusal.
- The contractor needs to be in possession of a valid COID (Workmen's Compensation) certificate as well as a public liability policy.
- A PSIRA registration certificate, as well as the registration certificates of all the board members and managers of the company as a security service provider; in accordance with the requirements of the PSIRA, Act 56 of 2001, has to be supplied to Eskom prior to engagement. This is aligned with sections 16.1 and 16.2 of the OHS Act.
- All contract security personnel need to have a pre-employment screening done prior to employment to determine candidate integrity.
- Registration certificates of all security operational staff (at least Level C), in accordance with the requirements of the PSIRA, Act 56 of 2001, shall be provided to the security managers and kept in terms of regulation 10 of the PSIRA.
- Records and documents need to be kept in the contractor security personnel files of employees in terms of Regulation 10(7) and be readily available for perusal.

- Hours worked shall be in compliance with the Basic Conditions of Employment Act.

### 32.3 Performance requirements and minimum criteria

- Valid PSIRA accreditation and registration
- Letters of good standing from PSIRA and Department of Labour
- Appropriate registration and accreditation with the South African Police Central Firearms Register and the Firearms Control Act, No. 60 of 2000
- Access to a SASSETA-registered training facility
- Sufficient public liability insurance
- Access to physically and mentally fit security officers (National Key Point/ PSIRA-accredited and firearm competent)
- Comply with Eskom equipment requirements, e.g. PPE, firearms, uniforms, etc.
- Pricing structures aligned to the applicable wage determinations for security service providers
- Sufficient experience and knowledge of the various security services as required as per the Eskom businesses and site types
- Compliance with Eskom security standards and operational requirements
- Compliance to Eskom safety requirements as detailed in the security contractor management standard

### 32.4 Firearms

- Prior to any firearms and ammunition being brought onto the site, contractors shall supply the Eskom security project manager with the following:
- Copies of all licences for all such firearms brought onto the respective site, as issued by the Central Firearms Register to the contractor in terms of the Firearms Control Act (Act 60 of 2000; "FCA")
- The head of security or supervisor of the private security contractor will be in possession of at least a Grade B PSIRA certificate.
- Appointment of a responsible person to issue firearms and ammunition
- Appointment of a person responsible for issuing firearm permits
- Firearm issue procedure
- Safe work procedure for the handling of firearms
- SAPS competence certificates
- Proof that all employees to be issued with firearms have at least completed unit standards for the handling of the applicable firearm for business purposes
- Proof that all employees have at least completed two practical training sessions every twelve months, in the proper safe-handling and use of the relevant firearm and ammunition.
- Security contractors shall manage the handling of firearms and ammunition in terms of legislative and Eskom requirements.
- In instances where firearms are issued,

firearm discharge chambers shall be provided where officials can safely apply safe work procedures for the handing over of firearms.

- Armed contract security provider officials must be in possession of section 20 and 23 licences and permits while on duty.
- Armed contract security provider officials must be equipped with applicable PPE such as bullet-proof vests and armoured plates and must wear such PPE at all times while on duty.
- The contract security personnel must be in possession of firearm competence certificates as well as a PSIRA ID card.
- The contract security personnel are competent to possess firearms, both in terms of being "fit and proper" and having the required practical skill.

### 32.5 Training

- The training facility of the security contractor has to be accredited as prescribed by SASSETA and the PSIRA.
- A training programme has to introduce the following and be kept available for members employed at the applicable Eskom site:
  - Legal aspects in terms of firearms





- First aid
- Basic firefighting
- Access and egress control
- How to perform patrols
- Health and safety training



## Section 33: Signage

### 33.1 Statutory requirements

- All signs and notices shall conform to the requirements of SANS 1186 in terms of standard signs, safety colours, geometric forms, and dimensions.
- In terms of identification regarding colour marking, ensure that the colours used match the appropriate colours of SANS 10140 and 1091.
- Only the necessary signs, as required by law, shall be displayed. These signs shall be SANS-approved and shall not be damaged or faded. Where a contractor or Eskom deems it appropriate, contractors are permitted to put up additional signs, provided that the colouring of the sign/notice conforms.
- A legend board demonstrating the symbolic safety signs and colour coding used on the sites shall be developed and displayed. The legend shall have a white background and may vary in size, depending on the number of items to display.

### 33.2 Training and signage position

- All employees shall be taught, during induction training sessions, the meaning of all safety signs and colour coding on-site, as symbolic safety signs are a means of communicating instructions and warnings visually to ensure employee safety.

- A safety sign shall be positioned in the most conspicuous position available and removed when the requirement for it ceases.
- For contractors, during site establishment, the contractor company identity sign shall be posted at its site offices to reflect the name of the company and emergency contact details.
- Contractors shall provide signage where work is conducted, where unauthorised entry is prohibited, and/or where alerting

- and cautioning passers-by to be aware of potential dangers.
- Caution and care need to be taken when positioning mandatory signage. Where these signs "indicate" a requirement, that means that it shall be done, irrespective of whether the activity is present or the equipment is a requirement; that is, if the sign indicates that hearing protection is required, which is now no longer the need, and the sign is still in place, hearing protection shall be worn.





## Section 34: Glossary

### 34.1 Definitions

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

**Confined space:** a confined space is an enclosed area that has a limited means of egress and is subject to the accumulation of toxic or flammable contaminants or has an oxygen-deficient atmosphere.

**Construction manager:** means a competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site.

**Construction supervisor:** means a competent person responsible for supervising construction activities on a construction site.

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

**Construction work permit:** means a document issued in terms of regulation 3 of construction regulations, 2014.

**Construction work:** means any work in connection with (a) the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or (b) the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work;

**Contractor:** means an employer who performs construction work (Construction Regulations).

**Disposal:** means the burial, deposit, discharge, abandoning, dumping, placing, or release of any waste into, or onto, any land.

**Domestic waste:** means waste, excluding hazardous waste, that emanates from premises that are used wholly or mainly for residential, educational, health care, sport, or recreational purposes.

**Environment:** has the meaning assigned to it in section 1 of the National Environmental Management Act.

**Environment Conservation Act:** means the Environment Conservation Act, 1989 (Act No. 73 of 1989).

**Eskom requirements:** Eskom requirements flowing from directives, policies, standards, procedures, specifications, work instructions, guidelines, or handbooks.

**Fall protection plan:** means a documented plan of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods to be applied in order to eliminate the risk.

**General waste:** means waste that does not pose an immediate hazard or threat to health or to the environment and includes:  
(a) domestic waste;  
(b) building and demolition waste;  
(c) business waste; and  
(d) inert waste.

**Hazard:** means a source of, or exposure to, danger.

**Hazardous waste:** means any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical, or toxicological characteristics of that waste, have a detrimental impact on health and the environment.

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

**Health and safety file:** means a file or other record, in permanent form, containing the information required, as contemplated in the Construction Regulations.

**Health and safety requirements:** are comprehensive safety and health requirements for a contract, project, site, and scope of work. This specification is intended to ensure the safety and health of persons, both workers and the public, and the duty of care to the environment. The safety and health requirements must be specific to each contract, project, site, and scope of work.

**Health and safety specification:** means a document specification of all safety and health requirements pertaining to associated works on a construction site, so as to ensure the safety and health of persons.

**Member of the public:** is any company-non-employed person(s) who could be directly or indirectly exposed to Eskom's/contractors' products or activities.

**Recovery:** means the controlled extraction of a material or the retrieval of energy from waste to produce a product.

**Recycle:** means a process where waste is reclaimed for further use, which process involves the separation of waste from a waste stream for further use and the processing of that separated material as a product or raw material.

**Reuse:** means to utilise articles from the waste stream again for a similar or different purpose without changing the form or properties of the articles.

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

**Site:** means an Eskom department, specific project site, or the site where a supplier provides a service to Eskom, directly or indirectly.

**Storage:** means the accumulation of waste in a manner that does not constitute treatment or disposal of that waste.

**Waste:** (a) any substance, material or object, that is unwanted, rejected, abandoned,

discarded or disposed of, or that is intended or required to be discarded or disposed of, by the holder of that substance, material or object, whether or not such substance, material or object can be re-used, recycled or recovered and includes all wastes as defined in Schedule 3 to this Act; or

(b) any other substance, material or object that is not included in Schedule 3 that may be defined as a waste by the Minister by notice in the Gazette, but any waste or portion of waste, referred to in paragraphs (a) and (b), ceases to be a waste-

(i) once an application for its re-use, recycling or recovery has been approved or, after such approval, once it is, or has been re-used, recycled or recovered;

(ii) where approval is not required, once a waste is, or has been re-used, recycled or recovered;

(iii) where the Minister has, in terms of section 74, exempted any waste or a portion of waste generated by a particular process from the definition of waste; or

(iv) where the Minister has, in the prescribed manner, excluded any waste stream or a portion of a waste stream from the definition of waste.

**Waste disposal facility:** means any site or

premises used for the accumulation of waste, with the purpose of disposing of that waste at that site or on those premises.

## 34.2 Abbreviations

**BU:** Business Unit

**COLD:** compensation for occupational injuries and diseases

**HCS:** hazardous chemical substance

**MSDS:** material safety data sheet

**NEMA:** National Environmental Management Act

**OHS:** occupational health and safety

**ORHVS:** Operating Regulations for High-voltage Systems

**OU:** Operating Unit

**PPE:** personal protective equipment

**PTW:** permit to work

**SANS:** South African National Standards

**SHEQ:** safety, health, environment, and quality

## Notes

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Notes

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Contractor OHS Management  
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