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## **1. Introduction**

Eskom will strive to be an Asset Centric Organisation. This Policy creates the framework for Maintenance Management within Eskom Holdings SOC Limited (Eskom).

The Asset Management Department has been mandated to standardise and support asset management activities to improve reliability, availability and sustainability of Eskom's asset base in line with the strategic objectives of Eskom.

In order to achieve this, the Asset Management Department will carry out its mandate within Eskom, and will ensure standardisation of maintenance strategies, procedures, maintenance processes, maintenance monitoring and life cycle management.

## **2. Policy Content**

### **2.1 Policy Statement**

Eskom shall ensure that the Maintenance of its Power Production Plant and Power Delivery Networks are aligned to Eskom's Management of Assets Policy, supporting the requirements of ISO 55000 and managed in such a manner that it enables Eskom to meet its objectives.

### **2.2 Policy Principles**

The following key principles shall apply:

- 1) Maintenance shall always be conducted in compliance with Eskom's SHEQ policies to ensure zero harm to employees, contractors, public and the environment; and shall comply with all legislative, regulatory and statutory requirements
- 2) Maintenance shall maximise performance of our assets over their life, taking into account the trade-off required between cost and risk, and implemented utilising a Computerised Maintenance Management System.
- 3) Maintenance planning, execution and reporting will be conducted in accordance to the approved Maintenance Process Control Manuals Generic Maintenance Standards will be developed and reviewed in line with the Design Base
- 4) Asset specific maintenance strategies will be developed based on defined Asset Condition, Criticality (based on consequence of failure) and Operational factors within the parameters of

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the Generic Maintenance Strategy. An Asset Risk framework will be adopted for the consequence of asset failure

- 5) Maintenance is conducted by competent personnel. The right mix of competent and motivated people are developed and retained to improve our maintenance capability
- 6) Legal, regulatory and statutory requirements are identified and categorised on the Maintenance plans and Maintenance Management System and are complied with.
- 7) Maintenance Metrics will provide a measure of the entire maintenance process to monitor and maximize maintenance planning, completion, efficiency and effectiveness.
- 8) The health of assets will be determined, reflecting the remaining expected useful life of assets. This will be the base for retirement planning and/or refurbishment

### **3. Supporting Clauses**

#### **3.1 Scope**

##### **3.1.1. Purpose**

The purpose of this Policy is to establish the framework and principles to enable alignment, standardisation of procedures, processes, monitoring and consistency in decision-making, of all stakeholders involved with maintenance operations on Eskom's physical assets.

##### **3.1.2. Applicability**

This policy shall apply throughout Eskom Holdings SOC Limited Divisions.

##### **3.1.3. Effective date**

As per authorisation date.

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### **3.2 Normative/Informative References**

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

#### **Normative**

- 1) IEC standard
- 2) ISO 55000
- 3) NERSA (Licences & Grid Code)
- 4) SHEQ Policy (EPL 32-727)

#### **Informative**

- 1) ISO 9001 Quality Management Systems
- 2) ISO 14000 Environmental Management.
- 3) ISO 18001: Occupational Health and Safety Assessment Standard
- 4) National Environmental Management Act 107 of 1998, as amended
- 5) Public Finance Management Act (PFMA) 1 of 1999, as amended
- 6) Basic Conditions of Employment Act 75 Of 1997, as amended
- 7) NRS 0-82: Maintenance Policy for Electrical Networks
- 8) NRS 047: Quality of Service
- 9) NRS 048: Quality of Supply

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### 3.3 Definitions

#### 3.3.1. Assets

Plant, machinery, property, buildings, vehicles and other items and related systems, that have a distinct and quantifiable business function or service. An entity with monetary value. An asset is commonly considered to be any component of a plant or its equipment.

#### 3.3.2. Asset Condition

Asset condition is the state of the asset relative to the designed performance. Often elements within and outside the asset could change the maintenance requirements (eg. oil condition, geographic location, operating conditions, etc.)

#### 3.3.3. Asset Specific Maintenance Standard

The Asset specific tasks and frequencies vary within the parameters of the design base and are adjusted for the following:

- 1) Operating Conditions
- 2) Risks (Safety, Asset, Customer, System, Financial, etc.)
- 3) Maintenance Objectives
- 4) Asset Conditions
- 5) Environmental Conditions

#### 3.3.4. Design Base

The design base of an Asset is the combination of those key design variables that define the functions, capabilities, dimensions, set points (Operating Technical Specifications) and Maintenance elements (Maintenance Base) that are required for the asset to meet its required performance, reliability and availability within the limits of the external constraints. In practice, it can be stated that should a change be made to any of the key design elements or external constraints, it will result in a change to the asset's performance, availability, reliability and /or maintainability.

#### 3.3.5. Generic Maintenance Standard

This is a document that prescribes the Generic maintenance tasks per asset class.

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### 3.4 Abbreviations

Abbreviation	Explanation
E-HPUM	Eskom High Performance Utility Model
IEC	International Electro-technical Commission
ISO	International Standards Organisation
NERSA	National Electricity Regulator of South Africa
NRS	National Rationalised Standard.
SHEQ	Safety, Health, Environment & Quality

### 3.5 Roles and Responsibilities

Role	Responsibility
Divisional Executive (Technology Division)	It is the accountability of the Divisional Executive to ensure that the maintenance policy is implemented and applied uniformly across the business in the governance of maintenance activities.
General Manager (Asset Management)	It is the responsibility of the General Manager to ensure that the maintenance policy is implemented and applied uniformly across the business in the governance of maintenance activities.
Divisional Executives (Gx, Tx and Dx)	It is the responsibility of Divisional Executives to ensure that the maintenance policy is adhered to within their respective divisions.
Senior Manager (Maintenance Centre of Excellence)	It is the responsibility of the Senior Manager to ensure that the maintenance policy is developed, reviewed and applied uniformly across the business in the governance of maintenance activities.

### 3.6 Process for Monitoring

Adherence to the policy and awareness of Eskom personnel will be monitored through regular audits, site inspections and peer reviews.

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This document has been seen and accepted by:

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## 5. Revisions

Date	Rev.	Remarks
Oct 2014	3	Document reviewed –various enhancements included
June 2013	2	Add key principle to effectively address OHSACT requirements
April 2012	1	Delete exclusion of Koeberg
August 2011	0	New document

## 6. Development Team

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## 7. Acknowledgements

Not Applicable

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