Eskom	Procedure	Technology

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Compiled by	Approved by	Authorised by
K. Mulaudzi	L. Mokoena	L. Fernandez
Senior Configurations Management Technician	CoE Manager: Configurations Management	Senior Manager: System Integration
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CONTENTS

FIGURES

TABLES

1. INTRODUCTION

In meeting the requirements of 32-1: Eskom Document and Records Management Policy [1] , this procedure describes the process and requirements for the registration (identification & retention), access and use, support for creation, review and authorisation, publication, archiving and disposal of documents and records within Group Technology and Group Capital Divisions.

It is a principal requirement that all Eskom business functions and activities are documented or recorded to provide authentic, reliable and retrievable evidence. The documents must also be maintained and kept up-to-date for as long as the business elements they support are in use.

This procedure aligns to the requirements of ISO 9001: Quality management systems – Requirements [25] and ASME NQA-1-2008: Quality Assurance Requirements for Nuclear Facility Applications [26] for the control of documents and records.

2. SUPPORTING CLAUSES

2.1 SCOPE

This procedure describes the requirements and controls for managing the Project/Plant Specific Technical Documentation (including documents, drawings and records). Project/Plant Specific Technical Documentation are technical documents that do not require periodic reviews and revisions. Project/Plant Specific Technical Documentation are technical documents that are subject to Engineering Change Procedures as set out in:

- 240-53114026: Project Engineering Change Management Procedure [10]
- 240-53114002: Engineering Change Management Procedure [11]

Any technical document that requires periodic review cycle, shall be managed in terms of 32-6: Document and Records Management Procedure [3].

Furthermore, this procedure supports the process that has been described and mapped in the 32-1216: Process Control Manual for Manage Documents and Records.[2].

The full spectrum of documentation used within Engineering is depicted in **Table 1 (Eskom's Documentation classes)**.

Table 1: Eskom's Documentation Classes

Procedure Identifier	Class of Documentation	Definition	Characteristics	Examples
32-6	Management and Governance Documents and Records	Documents that set direction and policy, defining authority and responsibility and describe the controls and rules for a given process or set of activities.	Changes and updates according to Periodic Review Cycles described in 32-6 Document and Records Management Procedure	Policies, Procedures, Standards etc. Safety, Health, Environment, and Quality (SHEQ) Policy, Plant Codification Standard, Plant Safety Regulations, Project Execution Plan, Project Instruction Manual, Configuration Management Plan. Project Environmental Management Plan, Engineering Management Plan
240-53114186	Project and Plant Specific Technical Documents and Records	Documentation containing product-related data and information that is used and stored. Covers data and information pertaining to: product definition and specification, design, manufacturing, quality assurance, product liability, product presentation; description of features, functions and interfaces; safe and correct use; service and repair of a technical product as well as its safe disposal.	Changes and Updates as per 240-53114002 Engineering Change Management Procedure and 240-53114026 Project Engineering Change Management Procedure	Drawings, Design Reports, Analysis Reports etc. Basic Design Report, Layout Drawing, Process and Instrumentation Diagram (P&ID). FMECA Study, RAM Analysis, FEA Model, FEA Analysis Results, Project Design Manual, Geological Test Results, Material Test Certificates, Seismograph Logs, Vibration Results, Test Certificate

2.1.1 Purpose

The purpose of this procedure is to outline the requirements, direction, principles and controls in compliance with 32-1: Eskom Document and Records Management Policy [1] so that authentic, reliable and useable documents and records are created, which are capable of supporting Project and Plant Specific Technical functions and activities, for as long as they are required.

Other objectives that are achieved through this procedure include the following:

- Ensure the technical integrity of Eskom's assets over their lifecycle.
- Meet legislative and regulatory requirements including archival, audit and oversight activities.
- Provide protection and support in litigation including the management of risks associated with the existence of, or lack of, evidence of organisational activity.
- Protect the interests of the organisation and the rights of employees, clients and present and future stakeholders.
- Maintain corporate, individual or collective intellectual property.

2.1.2 Applicability

This procedure is applicable to employees, including contractors, performing engineering work within operating units, projects, and service functions, for Eskom Holdings SOC Limited divisions and subsidiaries.

This procedure is applicable to all Project/Plant Specific Technical Documentation (documents, drawings and records), which are registered, created, updated, used, revised, reviewed, approved authorised, stored, disseminated and controlled during the execution of functions and activities.

2.2 NORMATIVE/INFORMATIVE REFERENCES

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

2.2.1 Normative

[1] 32-1: Eskom Document and Records Management Policy

[2] 32-1216: Process Control Manual for Manage Documents and Records.

[3] 32-6: Document and Records Management Procedure

[4] 32-644: Eskom Documentation Management Standard

[5] 32-9 : Definitions of Eskom documentation standard

[6] 240-58552870: SmartPlant for Owner Operators (SPO) Documentation Metadata Standard

[7] 240-54179170: Technical Documentation Classification and Designation Standard

[8] 240-44174997: Documentation Preservation Standard

[9] 240-53113685: Design Review Procedure

[10] 240-53114026: Project Engineering Change Management Procedure

[11] 240-53114002: Engineering Change Management Procedure

[12] 240-68604731: Design Base Standard

[13] 240-53665024: Quality Management System Manual

[14] 240-53114190: Internal Audit Procedure

[15] 240-122886108: Control and Management of Technical Records Work Instruction

[16] 240-122887026 Transmittals Management for Technical Documentation Work Instruction

[17] 240-122887708: Support Documentation Review and Authorisation Work Instruction

[18] 240-122888562: Register and Revise Technical Documentation Work Instruction

[19] 240-54179170: Technical Documentation Classification and Designation Standard

[20] 240-98682950: Project/site Specific Technical Document and Record Management Work Instruction (PDE)

[21] 240-76613085: User Requirement Specifications for Transmission and Distribution Design Base

[22] 240-76992014: Project/site Specific Technical Document and Record Management Work Instruction (GPE)

[23] 32-143 Procedure for handling classified items.

2.2.2 Informative

[24] ISO 9000: Quality management systems — Fundamentals and vocabulary

[25] ISO 9001: Quality management systems – Requirements

[26] ASME NQA-1-2008: Quality Assurance Requirements for Nuclear Facility Applications

[27] IEC 61355: Classification and designation of documents for plants, systems and equipment

2.3 DEFINITIONS

Authenticity – An authentic record is one that can be proven. Such a record should be able to fulfil the following:

- To be what it intended/purports to be,
- To have been created or sent by the author or sender, and
- To have been created or sent at the time recorded.

Archive - A place where Documents (hardcopy/electronic) or other materials of public or historical importance are preserved.

Approval Status - Indicates what the document is approved for, i.e. the purpose of the document as declared by the approver.

Controlled Hard Copy – A status assigned to those documents which are issued to specific user (a controlled copy holder) for a specific location, to support the execution of safety critical tasks; without access to a document management system 1.

Contractor – An individual or company that performs work on a contract basis for Eskom.

Custodian – A person who has the responsibility to oversee a project.

Configuration Management Lead (CML) – CM person delegated to ensure all CM processes and activities are followed and implemented within the project or plant.

Contracts Manager - A person making sure that contractual conditions are compiled to, contractual clauses are applied, contractual obligations are fulfilled and contractual requirements are met throughout the project lifecycle.

Documents

A physical medium (such as paper) that contains information. Examples of such media that constitute documents include specifications, procedures, drawings, reports, standards, forms and templates. Documents require revising & amending to remain current. They also normally state document management activities and controls to be applied on them. Documents can also be preserved in a digital format. Such documents are referred to as electronic documents.

Document and Records management – Field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use, disposal and destruction of records; including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records.

Document Metadata – Is all additional related document information that describes the attributes of a specific document (or record). Metadata includes but are not limited to the following; document title, document identifiers, document revision number, document compiler, document revision dates, document types, and areas of applicability.

Document Kind – Is a kind of document defined with respect to its specified content of information and form of presentation. See 240-54179170: Technical Documentation Classification and Designation Standard [7]

Disposal

- The final decision concerning the fate of a record, i.e. destruction or transfer to the archives;
- A program of activities to facilitate the orderly transfer of intermediate and inactive records from current office space into archival storage. It includes surveys, scheduling and record destruction.

Disposal Authority - An authority with the rights to dispose of records.

External Documentation - Documentation created and mastered outside Eskom and includes documentation created by external parties as contracted deliverables to Eskom.

Engineering Work - The application of specific scientific disciplines in the process of developing, designing, maintaining and operating assets with full cognisance of their (the) design and design limitations in order to improve the lives of people.

Electronic Document -Information recorded in a manner that requires a computer or other electronic device to display, interpret and process it. Electronic documents can include text, graphics or spread sheets, electronic mail and documents transmitted using electronic data interchange

Governance Document - Means documents that set direction and policy, defining authority and responsibility and describe the controls and rules for a given process or set of activities.

Integrity – The integrity of a record refers to its being complete and unaltered, i.e. protected against unauthorised alteration.

Internal Documents

This classification refers to all documentation compiled within Eskom for Eskom.

Incoming Transmittal - A business package used to manage distribution of documents coming into of the organization. This business package can provides a separate section in which you can group all documents to be distributed.

Master Document Index

A register that is used to capture all document received by the DRM Office. Shows the latest revisions of every document and drawing. It is the primary control and managing tool of listed documents and drawings.

Operational documents

Documents that supplement set governance documents and guide the implementation of the set policies, standards and procedures at a Division/Operating Unit/Business Unit and Section.

Outgoing Transmittal - A business package used to manage distribution of documents going out of the organization. This business package can provides a separate section in which you can group all documents to be distributed.

Records – Document stating results achieved or providing evidence of activities performed. Documents falling in this category are not allowed to be subjected to Revision Control, as it is records of evidence.

Reliability – A reliable record is one whose contents can be trusted as a full and accurate representation of the transactions, activities or facts to which they attest and can be depended upon in the course of subsequent transactions or activities in Project/Plant Specific Technical Documentation this is attested to by the fact that the documentation has been demonstrably approved, reviewed and authorised for its purpose.

Technical Documentation – means various documents with product-related data and information that are used and stored. The data and information intended include matters of product definition and specification, design, manufacturing, quality assurance, product liability, product presentation; description of features, functions and interfaces; safe and correct use; service and repair of a technical product as well as its safe disposal. Excluding the following document types i.e. project execution documents (i.e. schedules, project management, etc.), Governance documents and General Business documents.

Technical Design Document

Any document or drawing describing the design requirements for plant, system or equipment (or system, subsystem or component) during the life-cycle, which includes design, manufacture, construction, commissioning, operation, maintenance or decommissioning.

Technical Design Record

A document stating results achieved or providing evidence of activities performed, related to the design requirements for plant, system or equipment (or system, subsystem or component) during the life-cycle, which includes design, manufacture, construction, commissioning, operation, maintenance or decommissioning.

Project Documentation – Engineering, product-related, and design documentation used in the definition, specification, design, manufacturing, quality, operation, maintenance, and disposal of the plant. This documentation is created, used, and maintained for a specific site through stages of the PLCM from CRA through to handing over to Operations and Maintenance and Decommissioning).

Project Documentation (Non-Technical)

Documentation compiled for the management of the project. The data and information on the documents does not include matters of product definition and specification.

Transmittal

A business package used to manage distribution of documents in and out of the organization. This business package can provides a separate section in which you can group all documents to be distributed.

Optical Character Recognition (OCR) - The recognition of printed or written text characters by a computer. This involves photo-scanning of the text character-by-character, analysis of the scanned-in image, and then translation of the character image into character codes, such as ASCII, commonly used in data processing.

2.3.1 Disclosure Classification

The Compiler and Approver shall review the content of the document and determine the suitable disclosure classification applicable to the document. The following disclosure classification categories shall be applicable to this document:

Controlled Disclosure: Controlled Disclosure to external parties (either enforced by law or discretionary)

For definitions on **confidential**, **secret** and **top secret** see 32-143 Procedure for handling classified items.[23].

Notes:

- When compiling, handling, storing and distributing documents classified as confidential, secret and top secret, always refer to the document 32-143 Procedure for the handling of classified items to ensure that these are well managed.
- For records received from external parties it might not be possible to include the disclosure classification on them (e.g. quotations, invoices, etc.). If the record is a classified item (i.e. confidential, secret or top secret then it is important that it is stamped as such to ensure it is handled appropriately. It will be possible to receive a “redacted” document if it is classified as confidential, secret and top secret.

2.4 ABBREVIATIONS

Abbreviation	Description
ASME	American Society of Mechanical Engineers
CoE	Centre of Excellence
DC	Document Controller
DRM	Document and Records Management
GCD	Group Capital Division
EDMS	Electronic Document Management System
EPMO	Eskom Project Management Office
GPE	Generation Plant Engineering
Gx	Generation
IEC	International Electrotechnical Commission

ISO	International Standards Organisation
MDI	Master Document Index
MEA	Manage Engineering Accountability
OCR	Optical Character Recognition
PBS	Plant Breakdown Structure
PCM	Process Control Manual
PDE	Power Delivery Engineering
PDF	Adobe Document Publishing Format
SCOT	Steering Committee of Technology
SPO	SmartPlant for Owner Operator

2.5 ROLES AND RESPONSIBILITIES

2.5.1 Document Manager

The Document Manager is the custodian of all the Project/Plant Specific Technical Documentation for the applicable domain, i.e. Project or Operating Plant domains.

The Document Manager is appointed in terms of 32-644: Eskom Documentation Management Standard [4].

The Document Manager shall ensure compliance to this procedure.

2.5.2 Document Controller

The Document Controller(s) shall be appointed by the Document Manager in terms of 32-644: Eskom Documentation Management Standard [4] who shall be responsible to facilitate the correct implementation of this procedure including;

- Providing administrative support during the document and record management lifecycle (i.e. planning, development, receipt, registration, review and authorisation, publication, transmittal, use, archiving and disposal), and
- Reporting on document controls including document status, redundant documents, templates, adherence to procedure, training and other document and record management related issues, and
- Transmitting documentation and managing hard copies which are specifically reserved to be carried out by Document Controllers only.

Document Controllers shall be competent in the use of the relevant Document Management System.

2.5.3 Document Compiler

The Compiler (the person who drafted the content), working under the guidance and direction of the Document Approver, shall:

- Request registration or revision of a document using the relevant registration form
- Compile the document using the latest authorised revision of the applicable template
- Ensures that minimum document requirements (as described in Section 3.4.1 Registration of Proposed/ Planned Documentation) are adhered to,
- Ensures that there is no duplication with existing documentation, specifically regarding the document's objective and content,

- Ensures that the document content is accurate, has integrity and is pertinent to the subject matter,
- Ensures that proof reading is performed on the developed document, and
- Certifies that the document is complete and meets the requirements as well as adhering to engineering processes and design standards.

Any employee may be identified as a Document Compiler, on condition of having applicable knowledge and competency in the subject matter being documented and having been trained on this procedure.

2.5.4 Peer Reviewer

It is the responsibility of the Document Authoriser, Document Approver and Document Compiler to identify suitable Peer Reviewers that would assist with the refining and integration of the design within the overall project.

The Peer Reviewer, on a voluntary or request basis may offer review and development comments during the design process to develop a document.

2.5.5 Document Approver

The Document Approver is a competent person who takes professional accountability for content as per the MEA PCM & relevant Professional Organisation.

The Document Approver certifies compliance with the Engineering Processes and the integrity of the content and confirms that the technical content falls within the envelope for which the standard was established.

The Document Approver further also declares what the content may be used for, by marking the document with the applicable Approval Status.

2.5.6 Acceptance Reviewer

Acceptance Reviewers are persons identified by the Document Authoriser as deemed competent to assess one or more specific aspects of content of the document under review. Acceptance Reviewers may include Engineers, Document Controllers, Draftsmen, Configuration Management Practitioners, Quality Practitioners, and Safety Practitioners etc. See 240-53113685: Design Review Procedure [9])

The Acceptance Reviewer's comment/s shall be captured using the relevant EDMS or as part of the minutes captured during the Design Review Meeting. The details of the panel of Acceptance Reviewer/s should also be listed for reference purposes during this meeting, and attached as a reference document to the document record (as a list of attendees to the meeting in question).

The Acceptance Reviewer shall review the document for compliance to verification and validation requirements, as stipulated by the relevant COE's, including higher level system and interfacing system requirements as well as the requirements of Engineering Configuration Management and Documentation or Drawing Office Standards that are applicable to content for the stated purpose.

2.5.7 Document Authoriser

The Document Authoriser is a person duly delegated to release the content for use within the applicable domain. By authorising the document, the Document Authoriser confirms

- The competency of approver and reviewers and
- The adequacy of scope of review and soundness of review process.

2.5.8 Configuration Management Lead

On all applicable projects/ plant, the Configuration Management Lead shall be responsible for facilitating the correct implementation of this procedure by:

- Working with the relevant stakeholders in setting up Document and Configuration Management Systems.
- Compiles a CM Plan for the project.
- Ensure that Configuration items are identified and properly managed.
- Ensures that CM activities on the project are executed according to the approved CM Plan.
- Facilitates and administrates overall CM activities.
- Coordinates and sets up Engineering Project Change meetings, Change Request Analysis and Configuration Audits.
- Ensure that the Master Document Register/Document Deliverable Schedule is maintained.
- Ensures that plant coding is in accordance with Eskom standards and requirements.
- Ensure that the relationship between documents and plant equipment tags and plant systems are captured and maintained.

The CM Lead shall be trained to use the relevant Document Management System.

2.6 PROCESS FOR MONITORING

This procedure will be monitored via 240-53114190: Internal Audit Procedure [14] and self-assessments.

2.6.1 Process measures

The adequacy, effectiveness and efficiency of this procedure will be monitored by reports on document status, documents generated, reviewed and obsolete statistics.

2.6.2 Product measures

When implementing this procedure, the product will be an approved document, review cycle authorised (or not) document, complete with full traceability as to the comments that were made as part of the review. The product will be measured by the document metadata fields are correctly populated and records of reviews captured.

2.7 RELATED/SUPPORTING DOCUMENTS

All referenced documents.

3. PROJECT/PLANT SPECIFIC TECHNICAL DOCUMENT AND RECORDS MANAGEMENT PROCEDURE

3.1 OVERVIEW

The main activities that comprise the Project/Plant Specific Technical Documentation Management capability are illustrated in Figure 1

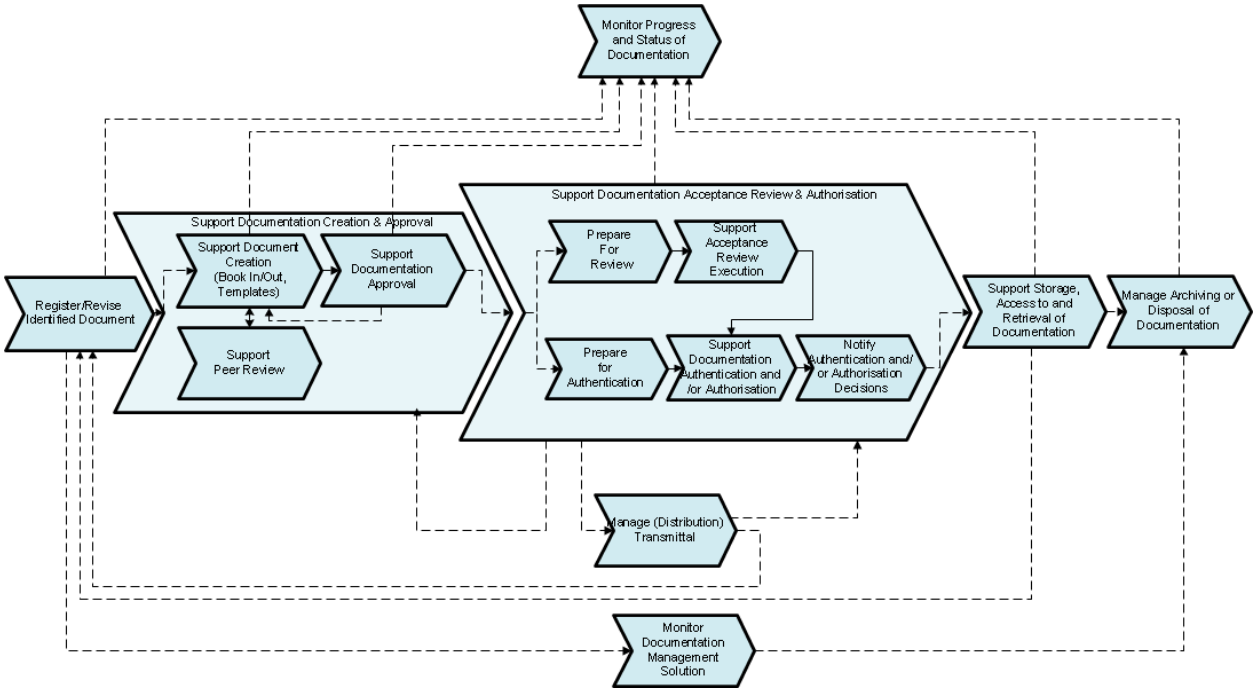

Figure 1: Overview of Project/Plant Specific Technical Documentation Management

3.2 PROJECT/PLANT SPECIFIC TECHNICAL DOCUMENTATION REQUIREMENTS

All Project/Plant Specific Technical Documentation shall be registered, controlled and managed using the relevant EDMS and shall as a minimum comply with the following:

- the document ownership shall reside within the applicable domain,
- document shall be unique in its purpose, content and aim,
- the document or record shall be uniquely identified,

Project/Plant Specific Technical Documentation shall be:

- Identifiable with minimum set of metadata as set out in the relevant documentation metadata standard, i.e.
  - 240-58552870: SmartPlant for Owner Operators (SPO) Documentation Metadata Standard [6] for GPE.
  - 240-76613085: User Requirement Specifications for Transmission and Distribution Design Base [21] for PDE.
- Registered in the relevant EDMS and have an authorised disaster recovery plan;

- Accessible through the relevant EDMS to enable well informed decision making;
- Authorised/Authenticated in the relevant EDMS, and once authorised only revised in accordance with the applicable change management procedure, i.e. 240-53114026: Project Engineering Change Management Procedure [10] or 240-53114002: Engineering Change Management Procedure [11].
- Kept securely based on classification and protected from loss and destruction;
- Not kept for longer than is necessary, in accordance with legal, business and regulatory requirements, in line with corporate guidelines;
- Disposed of appropriately, in accordance with legal and regulatory requirements;
- Communicated to interested and affected parties where required;
- Classified to indicate the security level in order to protect against unauthorised access;
- Properly approved, reviewed and authorised to ensure the integrity of documentation
- Properly managed to provide evidence of its integrity on an on-going basis

3.3 PROJECT/PLANT SPECIFIC TECHNICAL DOCUMENTATION METADATA

The Compiler shall ensure that the applicable metadata for technical documentation is in line with the metadata standards as listed in paragraph 3.2.

3.4 CREATION AND MANAGEMENT OF PROJECT/PLANT SPECIFIC TECHNICAL DOCUMENTATION.

3.4.1 Registration of Proposed/ Planned Documentation

The Document Compiler shall request registration of a new document by either:

- Requesting the document number directly on the relevant EDMS (online)
- Completing and submitting the relevant manual document registration form.

The metadata of the proposed document shall be used to perform a document search by the Document Controller to identify any possible duplication of documents.

A Unique Identifier (document number) shall be generated only once a search proved that the document (or similar) does not exist within the system. This information is then communicated to the document compiler by the Document Controller.

The Document Controllers shall manage the proposed development period, after which a reminder will be sent to the Document Compiler to establish the status of the document development. This could result in an extended development period or termination of the Unique Identifier number, for those documents that the Compiler has confirmed will no longer be developed.

For more details regarding GPE document registration, users must refer to 240-122888562: Register and Revise Technical Documentation Work Instruction [18]. For PDE documents, users must refer to 240-98682950: Project/site Specific Technical Document and Record Management Work Instruction (PDE) [20].

3.4.2 Registration of Records

All records (including all approved documentation) are managed only by Document Controllers.

The Document Controller shall ensure that any record received is legible. The record may either be an approved hard copy or digitally approved file in Portable Document Format (PDF), see 240-44174997: Documentation Preservation Standard [8] for more details.

For signed hard copies, the Document Controller, over and above the requirements as stipulated above, scans the document and files the original hard copies for safe keeping. See Section 3.4.8 Support Documentation Storage, Archive, Access and Retrieval for more details. The Document Controller OCR's and uploads the scanned files and attaches them to the relevant EDMS. . The Document Controller also requests and links the native files to the EDMS.

3.4.3 Revision of Approved Documentation

Once documentation is approved and authorised it becomes a controlled document which shall only be changed by creating a new revision i.e. it becomes a controlled document. The native copy of the document shall be requested by sending an email to the relevant EDMS manager to recall the document.

Authorised Project/Plant Specific Technical Documentation may only be revised using the Engineering Change Process (i.e. a change to a baseline).

A revision to an Authorised Project/Plant Specific Technical Documentation shall only be authorised, once the proposed engineering change has been authorised. See Section 3.4.6 Support Documentation Acceptance Review.

For more details on revision of approved documentation refer to 240-122888562: Register and Revise Technical Documentation Work Instruction [18] and 240-98682950: Project/site Specific Technical Document and Record Management Work Instruction (PDE) [20].

3.4.4 Support Documentation Creation

During the documentation creation stage, the document in question is being compiled/drafted, i.e. the document's content is being created.

During the Document Creation stage, comments may be obtained from the peers. See Section 3.4.5 Support Documentation Peer Review.

The Compiler works directly under the instructions of the Approver during the creation of the document.

If the document exists electronically, the Document Compiler shall make use of the "check in / check out" facilities of the relevant EDMS.

For more details on document creation, see 240-122888562: Register and Revise Technical Documentation Work Instruction [18] and 240-98682950: Project/site Specific Technical Document and Record Management Work Instruction (PDE) [20].

3.4.5 Support Documentation Peer Review

The Document Compiler and Document Approver may require review and comments during the process of compiling/drafting the document, in particular focusing on refining decisions and clarifying integration aspects early in the process in order to optimise the final solution.

This Peer Review may occur using any of the following methods:

1) A Formalised review meeting during which minutes are taken by the Compiler or Approver. These aspects are considered further in the design process and updating of the relevant associated documentation. These minutes are attached to relevant EDMS where the document is being created, as well as the attendance register of the Meeting that list the peer reviewer team members.
2) An Informal review during which other reviewers are surveying the draft document being compiled and letting the Compiler and Approver know of any concerns or suggestions to be considered. These written comments, as received by the Compiler, are also appended to the document being developed.

3) Circulating the document being developed within the EDMS in order to be marked up by the peers – this is done using checking out/in facilities and collaboratively marking-up the document being developed.

3.4.6 Support Documentation Acceptance Review and Authorisation

The Document Compiler shall submit the list of reviewers of the document to the Document Controller who will then initiate the formal review process using the Review Workflow of the relevant EDMS to all identified reviewers. After completion of the formal review within the specified period, the Document Controller will consolidate all comments and forward this to the compiler to update the document accordingly.

Based on the consolidated comments, the document is either declared Authorised or Not Authorised. Once updated with the consolidated comments, the final draft document is signed and Authorised by the Authoriser.

Should the Document be declared "Authorised with Comments" it may be used for further downstream design and development as is. Only minor corrections are required that will not impact the execution, nor the interfacing design development. Once minor corrections are made, the updated document is returned to the Approver to consider and incorporate the comments into the design documentation. In cases where a review meeting is required to finalise and approve the document, the minutes of that meeting will be loaded as the Consolidated Comments Report on the relevant EDMS, and the scanned Authorised document shall be attached to the document object.

For more details on how to perform review and authorisation in SPO please refer to 240-122887708: Support Documentation Review and Authorisation Work Instruction [17]. For other EDMS refer to 240-98682950: Project/site Specific Technical Document and Record Management Work Instruction (PDE) [20] and 32-6: Document and Records Management Procedure [3].

Please note that any future change to an authorised technical document is subjected to the Engineering Change Process Procedures listed below;

- 240-53114026: Project Engineering Change Management Procedure [10]
- 240-53114002: Engineering Change Management Procedure [11]).

3.4.7 Notify Documentation Authorisation Decision

The document may only be used downstream once the document has a document status of “Authorised” or “Authorised with Comments”.

The Authorised document (with comments or not) is distributed by the Document Controller as per the list of Interested and Affected Parties received from the document compiler (or Authoriser). Only documents correctly labelled with the respective Authorisation Statuses may be transmitted for further use. See Section 3.4.9 Manage Documentation Distribution via Transmittals.

3.4.8 Support Documentation Storage, Archive, Access and Retrieval

3.4.8.1 Storage and Archive

All records created through the engineering design activities shall be stored and archived electronically and managed in the relevant EDMS, including asset creation process (design, construction and commissioning) and design base records. See 240-68604731: Design Base Standard [12]. Refer to 32-6: Document and Records Management Procedure [3] for the storage and archival of hard copies and 240-122886108 Control and Management of Technical Records Work Instruction [12] for records stored on SPO.

All technical documentation and records generated shall be assigned and managed in line with the retention classification requirements as stated in 240-54179170: Technical Documentation Classification and Designation Standard [7].

3.4.8.2 Retrieval (Searching for documents)

A User may

- Query or find documentation himself using the metadata search functionality of the relevant EDMS, or.
- Obtain a document by requesting it from the relevant document centre.

In order to avoid duplicates in the EDMS; the Document Controller (DC) shall all at times search for possible duplicates before registering or revising a document.

The latest revision, conforming to the required Approval and Authorisation status of the requested documents, shall normally be provided in soft copy (electronic protected PDF Format labelled to reflect Statuses'). See preservation standard 240-44174997: Documentation Preservation Standard [8].

Note:

- For out of date Eskom documents; the native and/or other versions/revisions of the document may be specifically requested if required. The compiler must ensure that during this time, only the relevant reviewers are allowed access to the document.
- For external documents, the Contractor and Eskom must have an agreement concerning Intellectual Property (IP) agreements and warranties which shall be predefined in the terms of the external parties' contract. Once such an agreement is in place, the native and/or other versions/revisions of the documents or drawings produced by external parties may be requested when required, without compromising IP.

3.4.8.3 Access

Documents may be viewed directly by all users by accessing the relevant EDMS, depending on user's access and security levels assigned.

All personnel are responsible to ensure that the access to records within or external to the organisation is in accordance with the security and access rights assigned to the respective document.

Access to hard copies (as well as physical electronic storage media like CD, DVD, etc.) is managed as per 32-6: Document and Records Management Procedure [3].

3.4.9 Manage Documentation Distribution via Transmittals

The person with the relevant delegation (typically Project Manager/Contracts Manager) shall identify to the Document Controller those documents that are to be issued, and identify recipient by name, organisation and location.

The Document Controller shall maintain a Master Document Transmittal Index to track those documents that have been issued through transmittal, including the name of the holder, date of issue, revision number, organisation and location.

The Master Document Transmittal Index report can be generated from the relevant EDMS being used to store documents.

External Documents shall be delivered via transmittal form (see 240-71448626 Project/Plant Specific Technical Documentation Transmittal Form [33]), with signed receipt being returned to the Document Controller for record purposes. All revised "controlled copies" shall be returned by the holder to the Document Controller (at the time the revised document is delivered) via transmittal sheet.

For transmittals created in SPO the outgoing transmittal summary report shall be generated from the system. The summary report shall be used as a transmittal record that is sent to external parties.

The person with the required delegation (typically Project Manager/Contracts Manager) shall authorise the proposed complete Document Transmittal Pack, prior to issue by the Document Controller, specifically verifying that the correct revisions are being distributed with the required Approval and Authorisation Statuses.

Where practical SharePoint Transmittal portal site shall be used by both Eskom and External parties as a mechanism to upload and download the Transmittal Pack between parties concerned.

The records shall normally be provided as soft copies (electronic protected PDF Format labelled to reflect the authorisation status).

For more details on transmittal management please refer to 240-122887026 Transmittals Management for Technical Documentation Work Instruction [16].

3.4.10 Control of external document Receipt via transmittal

All Project/Plant Specific Technical Documentation is managed on receipt of the documentation under a formal transmittal process, communicated to all parties on the relevant project or plant.

The responsible document management business function shall set up the SharePoint Transmittal space on Eskom Extranet and grant access to the contractor. Contractors shall use the SharePoint Transmittal portal as a mechanism to upload and download to and from Eskom.

Upon receipt of the documents, Document controllers shall download and upload them to the relevant EDMS and assign the documents to the relevant Eskom personnel to review.

3.4.11 Manage Documentation Disposal

Any disposal of documentation (electronic files, document object and/or hard copy) are authorised using the 240-71448722 Project/Plant Specific Technical Documentation Disposal Authorisation Form [34]

Once the disposal is authorised, the object and files are deleted and the hard copies destroyed as per 32-6: Document and Records Management Procedure [3]. The disposal certificate (completed template above) is then stored as the record of the destruction of the document.

3.5 RECORDS

The following records are generated through implementation of this procedure and are controlled in accordance with this procedure.

[28] 240-53519752 Appointment of Document Controller

[29] 240-71448396 Project/Plant Specific Technical Documentation Registration & Revision Form

[30] 240-71450346 Project/Plant Specific Technical Document Template: (also forms basis as the template for other specific document templates)

[31] 240-48887557 Reference Drawing Template

[32] 240-71448634 Project/Plant Specific Technical Documentation Acceptance Review Comments Template

[33] 240-71448626 Project/Plant Specific Technical Documentation Transmittal Form

[34] 240-71448722 Project/Plant Specific Technical Documentation Disposal Authorisation Form

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Danie Odendaal	General Manager: Generation Plant Engineering
Prince Moyo	General Manager: Power Delivery Engineering
Vinod Singh	PDE - Middle Manager Design Engineering
Bongi Teti	PDE – Senior Advisor Engineering
Louis Fernandes	Senior Manager: Gx System Integration
Lucky Mokoena	CM CoE Middle Manager
Thando Dladla	Group Capital: EPMO - Manager Documentation Group Capital
Thelma Madzhiga	Group Capital: EPMO – Manager DRM
Riekie Swanepoel	Plant Engineering – Chief Technologist Engineer
Olloff Nel	D&S Manager Duvha
Mpho Rikhotso	D&S Manager
Anari Van Greuning	Manager Engineering Section (Hendrina)
Mpho Sekonyela	Manager Engineering Section (Grootvlei)
Stephen Likhethe	Manager Electrical Current (Kriel)
Anthony Mashabane	Manager Engineering Service (Majuba)
Ettienne Van Zyl	D&S Manager (Matla)
Nomfundo Mtshali	Manager Engineering Section (Arnot)
Rudi Sono	D&S Manager (Camden)
Lindani Biyela	Manager Engineering Section (Tutuka)
Elaine Van Der Westhuizen	D&S Manager
Joseph Ngqendesha	General TLC Manager (Kusile)
Nozuko Poswa	Senior Supervisor Technical Technician
Rob Griffin	Middle Manager Information Management
Astrid Holland	Senior Technician Nuclear

5. REVISIONS

Date	Rev.	Compiler	Remarks
October 2012	0	AD Martin	Superseded Procedure 474-58
November 2012	1	AD Martin	Final Authorised Document
July 2014	2	SJ Barnard	Document Purpose changed, new update to correctly reflect Project/Plant Specific Technical Documentation, Final document for Authorisation and Publication
October 2017	2.1	Kitso Mulaudzi	Updated the document to align to all Engineering technical documentation.
January 2018	2.2	Kitso Mulaudzi	Final Draft Document for Comments Review
April 2018	2.3	Kitso Mulaudzi	Updated Final Draft after Comments Review Process
April 2018	3	Kitso Mulaudzi	Final Rev 3 Document for Authorisation and Publication

6. DEVELOPMENT TEAM

The following people were involved in the development of this procedure:

- Kitso Mulaudzi
- Khomotso Mabotja
- Justice Nene
- Lawrence Koech
- Benny Lesejane

7. ACKNOWLEDGEMENTS

All parties that reviewed the document and supplied comments.

APPENDIX A: TYPICAL DOCUMENT MANAGEMENT SYSTEM LANDSCAPE FOR TECHNICAL & PROJECT DOCUMENTATION IN A GENERATION ENVIRONMENT

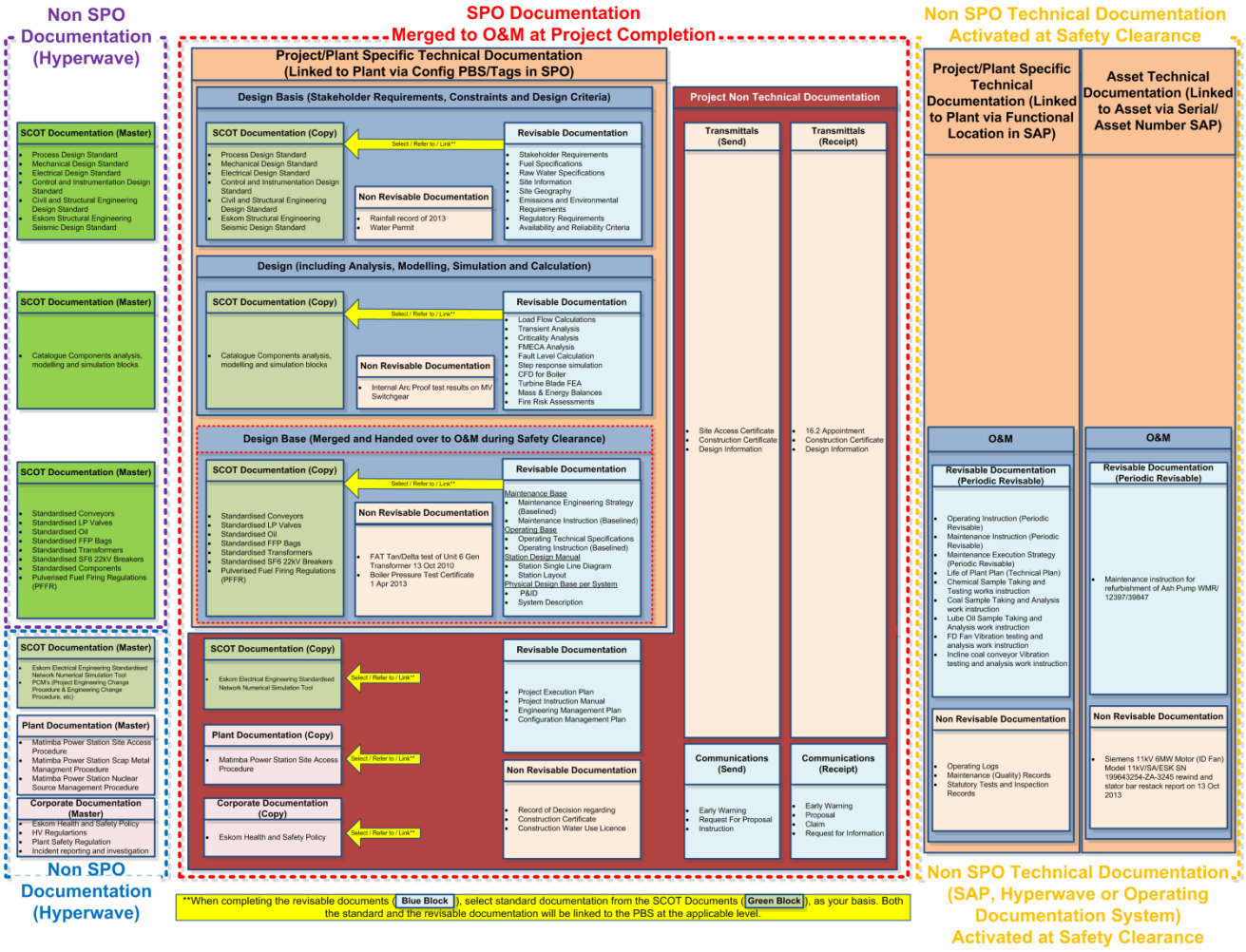

Figure 2: Typical Document Management System Landscape for Technical and Project Documentation in a Generation Environment