Eskom	Work Instruction	Medupi Power Station Project

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Compiled by	QA, Interface & Governance Review	Functional Responsibility	Authorized by
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1 Introduction

The ISO 9001: 2015 standard requires Team Medupi (TM) to audit its Quality Management System (QMS) by conducting internal audits and external audits at planned intervals. These audits are done to provide information on whether the QMS that is implemented on the project and all the departments conforms to the ISO 9001:2015 QMS requirements.

Team Medupi will also use the same standard to audit all interested parties such as contractors, subcontractors and suppliers of products and services to the Medupi project execution.

2 Supporting Clauses

2.1 Scope

This work instruction documents the requirements of ISO 19011 Guidelines on Quality & Environmental Systems Auditing that TM Quality Department will use to audit the Quality Management Systems of:

- Team Medupi (TM) and all the departments
- Contractors
- Subcontractors and Suppliers

2.1.1 Purpose

The purpose of this procedure is:

- To define the process for planning, establishing, conducting, follow-up, close-out and reporting the results of internal and external quality system audits undertaken by Team Medupi.
- To establish whether management systems conform to planned arrangements, contractual and international standard requirements.
- To ensure that specified requirements and project objectives are effectively implemented and maintained.
- Product technical integrity conforms to specification and code requirements.

2.1.2 Applicability

This procedure is applicable through all TM departments, contractors, sub-contractors, and suppliers/manufactures.

2.1.3 Effective date

Date of approval of this Work Instruction.

2.2 Normative/Information References

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

2.2.1 2.2.1 Normative

[1] ISO 9001: 2015 Quality Management Systems- Requirements

[2] ISO 19011:2018 Guidelines on Quality & Environmental Systems Audits

[2] ISO 9000:2015 Quality Management Systems - Fundamentals and -Vocabulary

2.2.2 2.2.2 Informative

[3] 348-961711 Project Execution Plan

[4] 348-883902 Project Quality Plan

[5] 348-883808 Document and Record Management

[6] 348-883554 Corrective Action Request Work Instruction

[7] 39-33 GCD Safety, Health, Environment and Quality Management Standards

2.3 Definitions

The vocabulary of ISO 9000, ISO 19011 and the following definitions apply in the application of this procedure.

Term	Explanation
Audit	Systematic, independent and documented process for obtaining audit evidence and evaluation objectively to determine the extent to which audit criteria fulfilled.
Audit Scope	Extend and boundaries of an audit. The audit scope generally includes a description of the physical location, organisational units, activities and processes as well as the time period covered.
Audit Evidence	Records, statements of fact or other information, which are relevant to audit.
Audit Findings	Result of evaluation of the collected audit evidence against audit criteria documented by TM under the following risk categories: **High** - non fulfilment of the requirement **Medium** - partial or incomplete fulfilment of a requirement **Low** - work practices can lead to a non-fulfilment or partial/incomplete fulfilment of a requirement:
Audit Program	Set of one or more audits planned for a specific time frames and directed to towards a specific purpose.
Auditee	Organization or persons being audited.
Auditor	Person with competence to conduct an audit.

Term	Explanation
Facilitator	A TM DQM assisting the Lead Auditor in the coordination of the audit execution.
Gap Analysis	An activity that helps in identifying gaps that exist between the standard and the organisations processes, through desktop review.
Lead Auditor	Person with competence to lead the conduction of an audit.
Non-conformity	Non-fulfilment of a requirement (systems)-documented by TM via an Audit Finding Report.

2.4 Abbreviations

Abbreviation or Acronym	Definition
NCR	Audit Finding Report
AN	Audit Notification
AR	Audit Report
CQM	Contractor Quality Manager
DQM	Discipline Quality Manager
EA	Engineer Assistant
KPA's / KPI's	Key Performance Areas / Key Performance Indicator
WISPA	Web Integrated System of Processes and Applications
QMS	Quality Management System
QD	Quality Department
RACI	Responsible, Accountable, Consult, Inform
SPO	Smart Plant Owner Operator
TM	Team Medupi
QAE	Quality Assurance Engineer

2.5 Responsibilities and Authorities

a) Responsible

Those who do the work to achieve the task. There is at least one role with a participation type of responsible, although others can be delegated to assist in the work required.

b) Accountable (also approver or final approving authority)

The one ultimately answerable for the correct and thorough completion of the deliverable or task, and the one who delegates the work to those responsible. In other words, an accountable must sign off (approve) work that responsible provides. There **must** be only one accountable specified for each task or deliverable.

c) Consulted (sometimes counsel)

Those whose opinions are sought, typically subject matter experts; and with whom there is two-way communication.

d) Informed

Those who are kept up to date on progress, often only on completion of the task or deliverable; and with whom there is just one-way communication.

Table 1: RACI Matrix

Process Step	**Quality TM Manager**	**QMS TM Manager**	**Lead TM Auditor**	**Auditee**	**TM DQM**
Develop and document a Project Audit Schedule catering for internal audits of Medupi Execution Team and external audits of Contractors	I	A	R	I	C
Assign Auditors for planned Audits	C	A	R	I	I
Issue Audit Notifications to Auditees	I	A	R	I	I
Respond to Audit Notifications	I	I	C	R	A
Execute Audits	I	A	R	C	C
Issue Audit Reports and Audit Finding Reports	I	A	R	I	I
Identify and document nonconformity cause and non-conformity correction	I	C	A	A/R	I
Verify non-conformity correction completion	I	C	R	I	C
Validate non-conformity correction completion	I	A	A	I	R
Close out Audit Finding Report in WISPA	I	A	R	I	C

2.6 Related/Supporting Documents

Documents superseded by the procedure

[8] 348-80423 Quality Management System Audits Rev 10

Forms and Templates

[9] 348-655890 Document Self –Assessment Template

[10] 348-9957154 Nonconformity & Correction/Corrective Action Report

[11] 348-10001143 Project Audit Program Template

Records

Records shall be maintained in SharePoint. When all NCRs associated with an Audit Report are closed the Audit Report and NCRs shall be filed in SPO and SharePoint.

The following records are considered applicable to this procedure

[12] Returned Audit Notification

[13] Project Audit Program

[14] Document Self-Assessment Checklist

[15] Audit Finding Report

[16] Audit Report

[17] Audit Attendance Register

Retention and storage of records generated as a result of this document shall follow the process defined in the document 348-883808 Document and Record Management.

3 Document Content

3.1 Structure, Formant and Content of Quality Management System Audits

The Audit process comprises of the following:

- Audit Planning (Audit Scheduling, Auditor Selection)
- Audit Notification
- Audit Execution.
- Audit Reporting.
- Audit Follow-up and Closeout.

All quality management systems of TM Package Delivery Teams, TM Functional Departments and Contractors shall be subject to audit as planned in TM Project Audit Program.

The DQM shall be a member of the Audit Team either as “Facilitator” for audits of Packages allocated to her/him, or an “Auditor” for external audits of Contractors not delivering the Packages he/she manages. The DQM role as Auditor for external audits of Contractors shall be on a sample basis.

Audit status shall be documented via an Audit Report (AR) and audit nonconformity shall be documented via an Audit Finding Report (NCR), which shall be traceable to the Audit Report.

Audit Reports and Audit Finding Reports shall be issued to Auditees via within seven (7) days of audit close-out meeting.

3.2 Audit Planning

3.2.1 Audit Scheduling

The frequency and scope of quality management system audits shall be planned in accordance with the status and importance of the project activities on a process-by-process basis relative to ISO 9001:2015.

The audits shall be documented within the Project Audit Program for planning purposes and to provide a graphical representation of quality management system audits per financial year. A working copy of the Audit Program is maintained by the QMS Auditor to track audits that were postponed / cancelled / rescheduled. Said working copy is maintained on SharePoint with access control.

3.2.2 Selection of Auditors

Auditors shall be selected and assigned by QMS Manager based on:

- Audit training / qualification.
- Audit experience.
- Work training / qualification.
- Work experience.
- The process / discipline to be audited (Subject Matter Experts)

The DQM shall be a member of the Audit Team.

3.3 Notification of Audits to Auditees

Audit Notifications shall be issued:

- In line with the Project Audit Program to Auditees.
- Via Medupi Audit proxy to auditees for Internal Audits
- Via Medupi Audit proxy to EAs requesting official transmittal to Contractors for External Audits
- A month prior to the planned audit date
- Signed by Project Quality Manager or QMS Manager

3.4 Auditee Processing of TM Audit Notifications

Upon receipt of a formal TM the Auditee shall be required to respond to the AN, identifying acceptability or not of the audit date. If not accepting the audit date the Auditee shall identify the reason for required postponement to an alternative date.

Failure to respond to an Nonconformity & Correction/Corrective Action Report within 3 working days shall constitute de-facto acceptance of the audit date by the Auditee and TM QD shall continue audit planning and preparation.

Where postponement of an Audit is requested by an Auditee, the Team Medupi assigned Lead Auditor shall liaise with the Auditee to determine whether the planned audit must be delayed or can occur as planned on the basis that the audits are quality management system audits and do not necessarily require presence of Process Owners.

Agreed revised dates shall be reflected in a reissued AN and audit postponement dates tracked in the working copy of the Audit Program.

3.5 Audit Execution

3.5.1 Opening Meeting

The assigned TM QD Lead Auditor shall convene an audit "Entry" Meeting with Auditee and shall request Attendees to complete the Audit Attendance Register

At the Audit Entry meeting the Lead Auditor shall address:

- Introduction of the audit team.
- Confirmation of the audit scope, objectives, and criteria.
- Specific audit requirements.
- Outline of audit programme.
- The method of reporting, including any risk categories of nonconformities.
- Any specific safety requirements for the audit.

Thereafter the audit team shall conduct the audit by:

- Interview individuals responsible for the areas being audited.
- Review applicable documentation relevant to the audit objectives, scope, and criteria, including information relating to interfaces between functions, activities and processes.
- Request to trace audit evidence to works or other stakeholders linked to the process

3.5.2 Audit Nonconformities

During the audit process notes of the audit and details of documents viewed shall be recorded by the Auditors for inclusion in the Audit Report, as applicable

Where QMS nonconformities are identified during the audit the Auditor shall complete 348-9957154, ensuring the following are documented:

- Auditee identity (Position / Name)
- Details of the nonconformity
- Risk rating where:

  High Risk is - nonfulfillment of a requirement**:**

  - Has potential for a negative major integrity, safety, or schedule impact upon product and / or service

  Medium Risk is - partial or incomplete fulfilment of a requirement**:**

  - Has potential for a **negative integrity**, safety, or schedule impact upon product and / or service

  Low Risk is - work practices can lead to a nonfulfillment or partial fulfilment of a requirement**:**

  - Does not have an **immediate negative integrity**, safety, or schedule impact upon product and / or service but should be resolved in due course to conform to Policies, Procedures and / or generally accepted sound principles and norms

- Sign off and date of the completed Form by both the Auditor and the Auditee as acceptance and acknowledgement of the Audit Finding.

3.5.3 Closing Meeting

Upon completion of the audit process the assigned Lead Auditor shall convene an audit "Exit" Meeting, when he/she shall:

- Verbally summarize the audit and read out and explain the nonconformities in the completed 348-9957154 form.
- Identify the date of Audit Report (and **NCRs**) issue.
- Identify to Auditees that:
  - Their response to individual NCRs is required within seven (7) days of receipt of the **AR** and **NCRs**, identifying cause of nonconformity, proposed correction measures and completion dates.
  - Their actioning of the identified nonconformity is required.
    - 7 days after TM QD acceptance of the cause of nonconformity and proposed correction measures for **High Risk** NCRs,
    - 14 days after TM QD acceptance of the cause of nonconformity and proposed correction measures for **Medium Risk** NCRs
    - 21 days after TM QD acceptance of the cause of nonconformity and proposed correction measures for **Low Risk** NCRs.
- Request Attendees to complete the Audit Attendance Register.

3.6 Audit Reporting

The TM Lead Auditor shall compile the NCRs, and audit report based on the 348-9957154, forms completed during the audit and other audit evidence.

The **Audit Report** (**AR**) shall comprise of**:**

- Audit Data - identifying details of the audit for traceability purposes.
- Audit Executive Summary - summarising the audit findings and risks to the Medupi Project.
- Audit Critique - detailing analysis of the audit findings and interviews, based on the clauses of ISO 9001 "**Audit Attendance Register**" and the completed 348-9957154 forms.
- The Audit Report and Audit Finding Reports shall then be issued to the Auditee.

3.7 Completion of Audit Finding Reports by Auditee

Auditees who receive NCRs as a consequence of a TM audit are required to:

- Identify the cause of nonconformity and propose correction measures by completing the respective windows for Sections 2 Cause of Nonconformity & 3.0 Correction Measures of the NCR to Team Medupi Quality Department.
- Upon receipt of acceptance Sections 2 and 3, implement nonconformity correction measures within the required timeframe (relative to assigned risk profile) and

thereafter complete Section 4 Verification of Correctness Completion of the NCR, uploading any necessary verification documents as attachments, and forward the NCR to TM to initiate their follow up and close out of the NCR.

3.8 Audit Follow-up and Closeout

3.8.1 Audit Follow-up

Causes of Nonconformity and Correction Measures to NCRs issued to Contractors shall be presented by the CQMs for review and acceptance by DQMs at Quality Clearing House Meetings for their respective Packages. Causes of Nonconformity and Correction Measures to NCRs to internal TM teams and open beyond the required response date shall be followed up by the QMS Auditor weekly and the QA Engineers during trend analysis.

3.8.2 Audit Finding Verification

Receipt of an NCR with Section 4 duly completed by Auditee, supported by attachments where applicable, shall result in TM QD Lead Auditor assigning the DQM to review the status and acceptability of the nonconformity correction measures.

Where correction measures are verified as complete by the DQM the Lead Auditor shall complete section 5 of NCR closing out the nonconformity and return the NCR to the Auditee.

When all NCRs are closed out the Lead Auditor shall revise the Audit Report to the next revision and issue to SPO at status “closed”.

4 Key Performance Areas and Indicators

4.1 Key Performance Areas and Indicators

The following Key Performance Areas / Indicators (KPAs / KPIs) shall be measured, analysed, and reported. The Process Owner shall be accountable and assign the responsibility at the frequency as indicated below, documented as part of the QMS measurement, analysis, and improvement initiative.

Table 2: KPAs/KPIs

Key Performance Area	Key Performance Indicator	Measure Frequency	Responsible	Record
Audit Planning	No. of Audit Notifications not responded to by Auditee No. of Audits postponed	Weekly	Lead Auditor	QMS Audit Report
Audit Execution	No. of Audits completed as scheduled No. of Audit Finding Reports issued on time	Weekly	Lead Auditor	QMS Report

	Risk rating of issued Audit Finding Reports			
Nonconformity	Nonconformity types and occurrence frequency	Weekly	Lead Auditor	QMS Report
Nonconformity Actioning	NCRs responded to in the required timeframe No. NCRs verified as actioned in the required timeframe No. of NCRs validated as actioned	Weekly	Lead Auditor	QMS Report

4.2 Document Review and Checklist for Self-Assessment

4.2.1 Document Self -Assessment

The “Process Owner” identified on the front page of this document along with departmental personnel shall undertake a “self-check” review of the process defined in this document at six monthly intervals, commencing from the effective date of this document, to check:

a) the process / procedure operational integrity

b) process efficiency

c) the level of stakeholder knowledge and implementation.

Participants and results of the “self-check” review shall be documented by the Process Owner in the “Self-Assessment Checklist” ***(Template No. 348-655890)*** included as an Appendix to this procedure which shall be submitted via SharePoint to Medupi Documentation Department Help Desk by the Process Owner once completed.

Process Owner shall proceed with any revision requirements in line with Medupi Procedures, 348-653867 “Development and Change of Medupi QMS Documents” and 348-883808 “Document and Record Management”.

4.2.1 Review Period

This document shall undergo a 3 yearly compulsory revision period starting from the effective date**.**

4.3 Training Requirements

Personnel implementing this procedure require no other specific training other than the operational requirements of this Procedure by the QMS Engineer. The personnel shall be trained / qualified Auditors or subject matter experts.

5 Acceptance

This document has been seen and accepted by:

Name	Designation
B Mgidlana	Project Quality Manager
M Sinobolo	Quality Manager
P Lubisi	Quality Engineer
R Kekana	Lead Auditor

6 Revisions

Date	Rev.	Compiler	Remarks
February 2022	11	R Kekana QA Auditor	Amend Appendix B and section 3.1 to indicate the process steps
May 2021	10	R Tshotheli QA Auditor	Document Due for three yearly Reviews
August 2017	09	J Mathebula QA Auditor	Aligned contents of the procedure with the new document template Aligned with the ISO 9001:2015

7 Development Team

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

- Quality Management Department
  - Phephile Lubisi
  - Moses Sinobolo
  - Raesibe Kekana

Appendix A - Process Self-Assessment Checklist

Discipline: **Quality Management**	Applicable Document No.:	Self-Assessment Date: / /

Item No	Ref Section	Self-Assessment Question	Compliant			Comment
			Yes	Part	No	
1	3.3.1	Is a project Audit Schedule available and approved for financial year				
2	3.4	Are Audit Notifications issued in line with project Audit Schedule				
3	3.3.2	Are Auditors assigned for planned Audits and are they suitably qualified				
4	3.5	Are Audit Notification responded to by Auditees within 3 working days				
5	3.6	Are audits executed in line with planned arrangements				
6	3.7	Are Audits Reports and Audits Finding Reports issued within required timeframes				
7	3.8	Do Audit Findings adequately identify nonconformity when issued				
8	3.8	Do Audit Findings adequately identify nonconformity cause and correction measures				
9	3.8	Are NCRs responded to within 7 workings days after issue/receipt				
10	3.8	Are NCRs actioned in required timeframes relative to risk profile				

11	3.8	Are records made available to verify nonconformity correction				
12	3.9.1	Does DQM verify non-conformity correction completion				
13	3.10	Is Audit process performance monitored and measured and reported				
Comments:						

Self-Assessment by:	Name:	Position:	Revision Required? (Yes / No)	Planned Revision Date:
Attendees:				