Eskom	Procedure	Technology

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Compiled by	Functional Responsibility	Authorized by
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Date: 2012.11.15	Date: 15/11/2012	Date: 28/11/12

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1. INTRODUCTION

Internal Audit is an essential measurement tool for establishing the level of compliance to requirements, albeit ISO9001 or other business requirements, and providing Top Management with the assurance that the business management systems and processes are effectively applied to assure that products/services are meeting customer requirements.

The internal auditing cycle forms a critical and integral part of the identified need for continuous business improvement. This relates directly to the Plan-Do-Check-Act cycle highlighted as core to continuous improvement within ISO 9001.

2. SUPPORTING CLAUSES

2.1 SCOPE

This Internal Audit Procedure is applicable to the Engineering business domain; to plan, conduct and manage all matters related to management system evaluations/internal audits. Internal audits are conducted on all aspects of the Engineering Business Management System to evaluate compliance and effectiveness and for the Senior Manager: Engineering Support to report on the status of the Business Management System to Top Management. Further this process has been described and mapped under the [7] 32-1213 Process Control Manual for Manage Internal Audit.

The ISO9001 Management Representative is responsible for the procedure's development, maintenance and implementation.

The ISO 19011 Standard is the reference standard, used for conducting internal audits within the business domain.

2.1.1 Purpose

This Procedure sets the direction, methods and responsibilities applicable to the planning, execution, and management of internal audits as applied to evaluate and report compliance, effectiveness of processes and support the continual improvement of the Engineering Business Management System.

Internal audit findings, indicating conformance and non-conformance are used to assess the effectiveness of the business management system and to identify opportunities for improvement.

2.1.2 Applicability

This procedure is applicable to all employees, including contractors, who are required to apply this procedure in the execution of tasks under the Engineering Business Management System.

2.2 NORMATIVE/INFORMATIVE REFERENCES

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

2.2.1 Normative

[1] ISO 9001 Quality management systems - Requirements.

[2] ISO 19011 Guidelines for auditing management systems.

[3] 32-727 Safety, Health, Environment and Quality Policy.

[4] 240-53114186 Document and Record Management Procedure.

[5] 240-53114192 Corrective and Preventive Action Procedure.

[6] 240-53114194 Control of Nonconforming Product Procedure.

[7] 32-1213 Process Control Manual for Manage Internal Audit

2.2.2 Informative

[8] 240-53665024 Quality Management System Manual

[9] ISO 9000 - Quality management systems - Fundamentals and vocabulary

2.3 DEFINITIONS

Definitions applicable to the procedure are as published under ISO 9000 or ISO 19011.

For the purposes of readability of this Procedure the following terms have relevance -

- "Audit" and "assessment" as defined by ISO 9000. In this procedure the term "audit" means either audit or assessment, depending on the identified activity. This procedure recognises the difference between audit and assessment but the same management processes are applied in the Planning, Implementation and Reporting of internal audit activities; it is only the execution style and outcome that differ.
- the definition of "audit finding", as defined by ISO 9000, is applicable to the term "nonconformity" as used in this procedure, which includes "findings", "conformities", "deviations", "observations" (potential deviations) and "opportunities for improvement".
- "Top Management" person or group of people who directs and controls an organisation and includes the General Managers and the Divisional Executive

2.3.1 Classification

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

2.4 ABBREVIATIONS

Abbreviation	Description
EDMS	Eskom Document Management System
ISO	International Organization for Standardization

2.5 ROLES AND RESPONSIBILITIES

2.5.1 Senior General Manager: Engineering

The Senior General Manager: Engineering is accountable to ensure that this Procedure is applied and continually improved.

2.5.2 Management Representative

The Management Representative, responsible for Business Management System (appointed in terms of ISO9001 clause 5.5.2), is to ensure that this Procedure is applied, maintained and continually developed to ensure relevance to the organisation.

The Management Representative shall ensure that an Internal Audit programme is developed and implemented and reported to Top Management on the effectiveness of the Business Management System, this includes the provision of applicable internal audit resources.

The Management Representative shall, further to the above responsibilities –

a. Manage the Internal Audit programme, and Register of nonconformities/findings,
b. Develop, implement and maintain this Procedure,
c. Promote awareness regarding the implementation of this procedure, and
d. Report on the Internal Audit Programme activities to the Top Management.

2.5.3 Auditee

The Auditee, who is the Top Management representative for a discipline or business area being audited, is required to cooperate with the Lead Auditor and the audit team. The Auditee is responsible to ensure relevant personnel/information is available to support the successful conclusion of the audit. This includes ensuring that the relevant personnel are briefed regarding the audit, its scope and purpose to support its success.

2.5.4 Internal Auditor

The Internal Auditor/s shall comply with this procedure and best practices applicable to Internal Auditing activities.

2.6 PROCESS FOR MONITORING

This procedure will be monitored via self-assessments and independent audit to ensure compliance with the 32-727 Safety, Health, Environment and Quality Policy.[3] and 240-53665024 Quality Management System Manual [8].

2.7 RELATED/SUPPORTING DOCUMENTS

[10] 240-53114065 Request Internal Audit/Assessment

[11] 240-53114067 Internal Audit/Assessment Notice

[12] 240-53114069 Nonconformity/Observation/Opportunity for Improvement Notice

[13] 240-53114098 Audit Itinerary template

[14] 240-53114103 Audit Plan template

[15] 240-53114107 Audit Program

[16] 240-53114114 Auditor Certification template

[17] 240-53114119 Opening and Close-out Meeting Presentation

[18] 240-53114123 ISO9001 Checklist master

3. INTERNAL AUDIT PROCEDURE

3.1 AUDIT PROGRAM PLANNING

The Management Representative shall plan and establish a 240-53114107 Audit Program [15] to ensure effective monitoring and measurement of the implemented Business Management System.

The Internal Audit program shall include –

- the proposed date,
- scope of audit,
- type of audit, i.e. system/process,
- discipline/area Manager name,
- lead auditor, and
- audit criteria, i.e. standard/process.

The Internal Audit program shall consider the following factors –

- Coverage of the ISO9001 requirements within a 3 year cycle,
- Maturity of the various processes implemented,
- Recommendations of the Management Review meeting,
- Results of previous audits,
- Organisational risks and treatment plans, and
- Customer compliments/complaints.

The Internal Audit program shall be approved on a regular basis but at least annually by the Management Representative.

The Internal Audit program shall be made available to Top Management and all Senior Managers (disciplines), especially after changes.

3.2 ADDITIONAL AUDITS

Additional internal audits may be requested to be included in the Internal Audit program on submission of a240-53114065 Request Internal Audit/Assessment (via Form/email/system) [10]. The request shall include at least the scope, criteria/requirements, discipline/area and due date.

The Management Representative shall review the Internal Audit/Assessment Request against the approved Internal Audit program to check for possible duplications or opportunities to extend an existing audit or to reject the request based on the following factors –

- Audit scope was recently audited,
- Lack of auditor capacity/competence, or
- Insufficient information to effectively scope and schedule the audit request.

The Management Representative shall advise the requester of the decision via email communication.

3.3 AUDIT PLANNING

a. The Management Representative shall identify the Lead Auditor, with applicable qualification and experience to lead the scoped audit. See Appendix C and Auditor Certification for qualification and experience of Internal Auditors.

b. The Lead Auditor in conjunction with the Management Representative shall identify the required team to conduct the audit, taking into account the audit objectives, scope and use of technical/subject experts.

c. The Lead Auditor shall develop an audit plan for the scoped audit, including objectives, time table, topics to cover audit scope, personnel to be audited, applicable standards and documents, logistics and venue. See Appendix D for examples of an audit plan refer also to 240-53114103 Audit Plan Template [14].

d. The Lead Auditor shall coordinate the development of applicable audit checklist/questionnaire which shall be used during the audit, to capture audit evidence. The checklist/questionnaire will form part of the audit record but not necessarily part of the final audit report.

e. The Lead Auditor shall lodge with the affected discipline / area Manager the notice of audit; using 240-53114067 Internal Audit/Assessment Notice [11]. The audit notice shall be lodged at least 10 working days before the commencement of the audit. The audit notice periods may be reduced on condition that the affected discipline/ area Manager is consulted and agrees to the reduced notice period, which shall be recorded on the audit notice.

f. The Auditee (Discipline/Area Manager) is responsible for ensuring that relevant personnel are informed about the scope of the audit, and relevant personnel and data are available at the time of the audit, using the 240-53114103 Audit Plan Template [14] and 240-53114098 Audit Itinerary Template [13]. The Auditee (Discipline/Area Manager) shall lodge with the Lead Auditor the documentation identified, as prescribed in the audit notice.

g. The scheduling and issuing of the audit notice via email or other electronic business application is acceptable, on condition the record of such scheduling and notice can be retrieved, in accordance with 240-53114186 Document and Record Management Procedure [4].

h. The Lead Auditor shall review previous applicable audits, findings, incidents, customer compliments/complaints, correspondence or records, which is applicable to the audit scope and or discipline/area to be audited. The Lead Auditor shall ensure that such relevant information is included during the audit execution.

i. The Lead Auditor may assign different parts of the audit to different team members, depending on the nature and complexity of the audit.

3.4 AUDIT EXECUTION

3.4.1 Auditing

a. The Lead Auditor is responsible for the execution of the audit according to the audit plan and may make changes to the audit plan during the audit to achieve the audit objectives. This may include the cancellation of/or rescheduling of the audit due to circumstances beyond the control of the Auditee or auditor. Such instances shall be reported to the Management Representative forthwith and in writing (via email) providing such detail to explain the circumstances and decisions taken.

b. The Lead Auditor shall conduct the audit, generally in accordance with ISO 19011 Guidelines for auditing management systems. [2], which will include holding Opening and Closing meetings, reporting back on any nonconformities and compiling an audit report. See also the 240-53114119 Opening and Close-out Meeting Presentation [17]

c. The Lead Auditor shall ensure adequate information and evidence is captured to fairly report on the objectives and scope of the audit performed. The Lead Auditor shall manage the audit to ensure it remains focussed and effective.

3.5 AUDIT REPORTING

3.5.1 Reporting

a. The Lead Auditor with support from the audit team members shall prepare and issue an audit report. See Appendix E for an example. The report shall include a summary of findings, positive aspects, evidence of audit conducted and findings issued.

b. All findings issued shall be captured using 240-53114069 Nonconformity/Observation/ Opportunity for Improvement Notice [12] and issued to the applicable responsible Manager or Process owner, for action and response in accordance with, which includes a root cause, correction, corrective / preventive action, 240-53114192 Corrective and Preventive Action Procedure [5]. All findings shall be categorised according to the criteria as per Appendix F .

c. The audit report shall be issued within ten (10) working days after the conclusion of the audit, which shall include the Management Representative review and authorisation. The final report shall be recorded in accordance with the requirements of 240-53114186 Document and Record Management Procedure [4]. If in the case that the Management Representative performs the role of Lead Auditor the audit report shall be authorised by a Manager on level higher than the Management Representative.

d. The Management Representative shall ensure that all findings issued shall be captured in the applicable register for control, data analysis and management purposes and may include the recording of the closure of any previous finding for which evidence was adequately demonstrated.

3.5.2 Monitoring and measurement

The Management Representative shall cause the collation of applicable audit results and other relevant information to conduct applicable data analysis to enable meaningful reporting to Top Management including internal audit feedback at the Management Review meetings. The analysis of audit activities shall be conducted at least annually for presentation at the Management Review meeting.

3.6 AUDIT ACTIONS

a. Top Management are responsible to ensure that any actions resulting from the application of this Procedure are addressed to finalisation, to support meeting the quality principles of customer satisfaction and continual improvement of the Business Management System.

b. The Senior Managers shall review all applicable audit reports and issued findings, to ensure effective management and resolution. The Senior Managers shall monitor the actions and resolution of all findings within their area of control, to ensure effective implementation and closure.

c. Personnel assigned responsibility for a finding/s shall take the reported and agreed actions to effectively address the implementation and closure. This includes advising the Management Representative of the actions taken to enable closure.

d. The Lead Auditor of the audit which generated the finding shall review the adequacy of the evidence presented/implemented to address the matter and shall upon acceptance close the finding. In cases where the original Lead Auditor is not available the Management Representative shall nominate an alternative auditor, as Lead Auditor, to review the evidence presented for evaluation of adequacy, compliance and closure.

4. RECORDS

The following records are generated through implementation of this procedure and are controlled in accordance with 240-53114186 Document and Record Management Procedure [4].

Table 1: Records

	Description
1	Audit Program
2	Audit Plan
3	Audit Report
4	Nonconformity/Observation/ Opportunity for Improvement Notice
5	Internal Audit/Assessment Notice
6	Request Internal Audit/Assessment

5. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
P Moyo	General Manager: Power Delivery (Acting)
F Sithole	General Manager: Engineering Project Management (Acting)
R Stephen	General Manager: Power Delivery Engineering (Acting) Master Specialist
DD Bhimma	Senior Manager: Account Executive: Coal Senior Manager: Fleet Technology Manager (Acting)
L Fernandez	Senior Manager: Systems Integration B2B Engineering Processes / Systems Lead

6. REVISIONS

Date	Rev.	Compiler	Remarks
November 2012	1	AD Martin	Superseded previous procedure including QA comments

7. DEVELOPMENT TEAM

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

- AD Martin
- I Campbell
- H Bester
- L Kloppenborg

8. ACKNOWLEDGEMENTS

To all who made comments in the development of this document.

APPENDIX A: INTERNAL AUDIT PROCESS

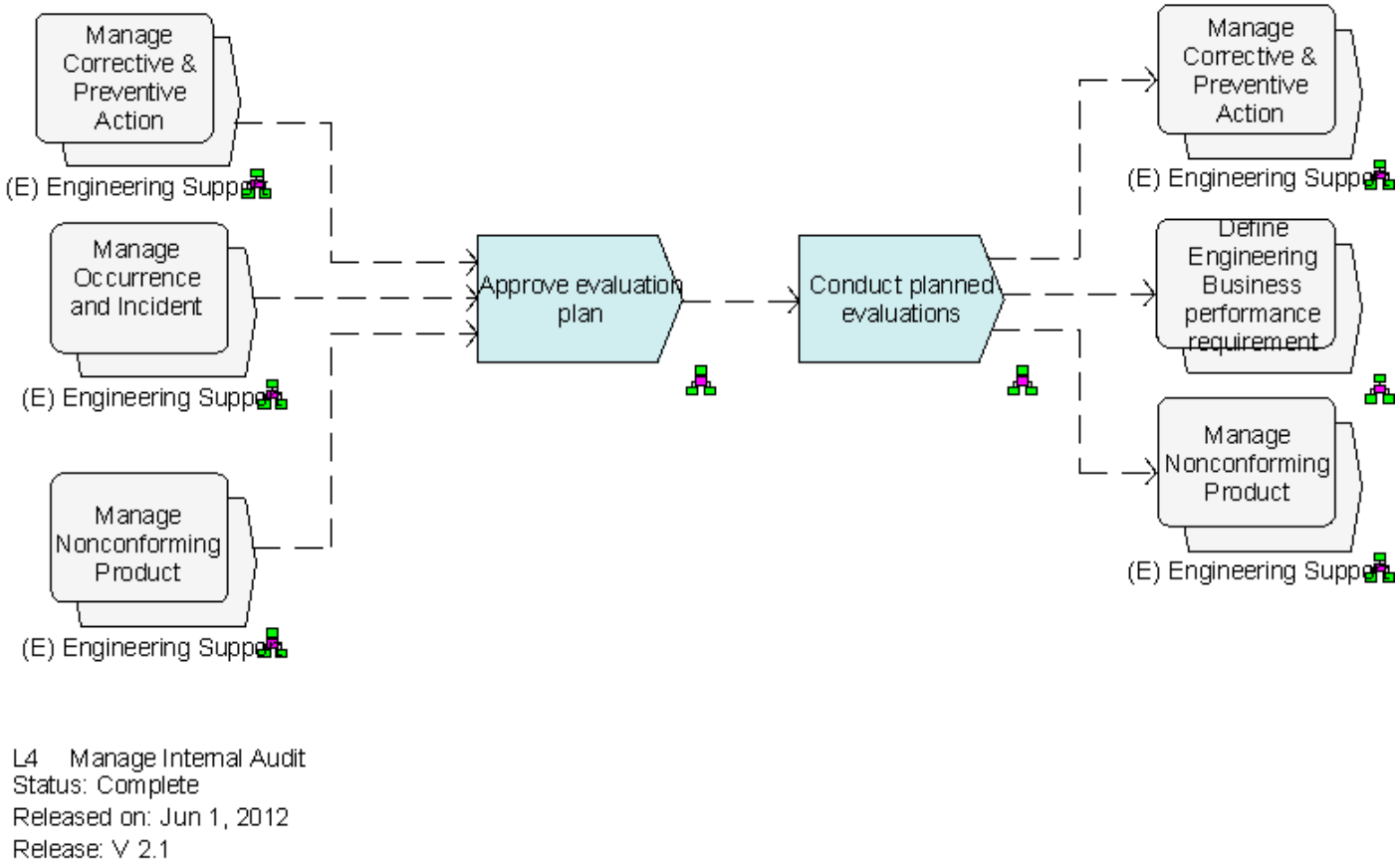

Figure 1: Internal Audit Process

APPENDIX B: INTERNAL AUDIT PROGRAM

B.1 AUDIT PROGRAM FIELDS

## Quality Management Representative			Date:	Status	.....		
Discipline/Area	Scope of Audit	Type (system/process)	Discipline/Area Manager	Date of Audit	Standard/Process documents	Lead Auditor	

** The table footer should contain the Hyperwave record number and revision

APPENDIX C: INTERNAL AUDITOR QUALIFICATIONS

C.1 LEAD AUDITOR

The Lead Auditor shall hold the qualifications of a Senior Auditor and be assigned by the Engineering Management Representative to lead the identified audit.

C.2 AUDITOR

- Senior Auditor

  A Senior Auditor shall hold the following qualifications -

  - Successfully completed an ISO 9001 knowledge *course, and
  - Successfully completed an ISO 9001 Lead Auditor *course.
  - Completed awareness training on ISO 19011.
  - Have led at least 2 system audits under supervision of a qualified Lead Auditor.
  - Hold an applicable tertiary Qualification.

  * A course presented by an organisation accredited and recognised Service Provider for ISO 9001.

- Auditor

  An Auditor shall hold the following qualifications

  - Successfully completed an ISO 9001 knowledge *course.
  - Successfully completed an ISO 9001 Internal Auditor* course
  - Completed awareness training on ISO 19011.
  - Hold an applicable tertiary Qualification.

APPENDIX D: AUDIT PLAN - EXAMPLE

An audit plan for the scoped audit, including objectives, time table, topics to cover audit scope, personnel to be audited, applicable standards and documents, logistics and venue

Audit Plan at Project X

DATE OF AUDIT: 12 – 14 March 2008

AUDITEE: Project X

AUDIT TEAM: Joe Soap Lead Auditor

Joan Soap Technical Auditor

AUDIT PURPOSE/OBJECTIVE:

Evaluate the suitability, effectiveness and compliance of the Project X's Quality Management Systems, as applicable to ## requirements.

AUDIT SCOPE:

The audit will cover an evaluation of the Project X's compliance to the following Quality Management System procedures and process.

a) Policy #
b) Procedure No ##
c) Procedure No $$
d) Process Document No. %%

Audit activities will be in accordance with the following program:

	DAY 1 - 13 March 2008			
TIME	**ACTIVITY**	**Project X Assurance Personnel**	**Area/Venue**	**Auditor**
08.30 – 09.00	Audit Opening Meeting			
09.00 – 10.00	Quality Management			
10.00 – 11.00	Management			

	Responsibility			
11.00 – 12.00	Resource Management			
12.00 – 13.00	Lunch			
13.00 – 16.30	Product Realization Planning Customer-related processes Design and Development Purchasing			
16:30 – 17.00	Audit team discussion	Audit team		Audit team

DAY 2 – 14 March 2008				
TIME	**ACTIVITY**	**Project X Assurance Personnel**	**Area/Venue**	**Auditor**
08.30 – 09.00	Opening Meeting			
09.00 – 12.00	Product Realization …continued Production and service provision Control of Monitoring and measuring devices			
12.00 – 13.00	Lunch			
13.00 – 14.30	Measurement, analysis and improvement Control of non-conforming product			
14.30 – 16.30	Safety Management System			
16.30 – 17.00	Audit team discussion	Audit team		Audit team

APPENDIX E: AUDIT REPORT STRUCTURE - EXAMPLE

E.1 REPORT STRUCTURE AND HEADINGS

a. Front Page with Title - Document number, revision, name & signature of complier and approver, dates and index
b. Scope and Purpose of audit
c. References
d. Audit Team
e. Main Persons contacted
f. Audit Summary
g. Audit Results
h. Recommendations
i. Attachments – including nonconformity notices, attendance registers

APPENDIX F: FINDING CATEGORISATION

a. High:

A finding is assigned a **high rating** when one or more of the following problems are identified:

- Nonconformance with legal or regulatory requirements.
- Non-adherence to Business Management System, Policy or Procedure requirement.
- Major product and/or service defects that could have an effect on the safety integrity or the performance of complex structures, systems or components.
- A significant breakdown of the Quality Management System or other business requirements
- A repeat of previously identified high or medium rated finding

b. Medium:

A finding is assigned a **medium rating** when one or more of the following problems are identified:

- Non-adherence to a documented Process or Work Instruction requirement.
- System deficiencies that have a moderate impact on the Quality Management System or other business requirements
- Product and/or service defects that are not safety integrity related but have a moderate effect on the performance of structures, systems or components
- A repeat of previously identified low rated finding.

c. Low:

A finding is assigned a **low rating** when one or more of the following problems are identified:

- Non-adherence to forms or templates i.e. incomplete or not used.
- System deficiencies that have a minor impact on the Quality Management System or other business requirements
- Minor product and/or service defects.