	QA QC Scope of Work	Group Capital Division
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#### Compiled by

A. Booth



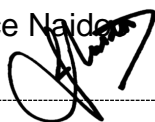
**Middle Manager Project Portfolio**

**Group Capital Division**

Date: 19/09/2025

#### Approved by

Jace Naidoo



**SHEQ Sustainability Manager**

**Group Capital Division**

Date: 19.9.2025

#### Authorized by

R. Crookes



**Group Executive**

**Group Capital Division**

Date: 2025-09-19

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## 1. Introduction

As part of the Group Capital Division (GCD) re-establishment initiative, GCD is seeking to engage the services of a specialist Quality Assurance (QA) and Quality Control (QC) Services (QA/QC) Provider that is ISO 9001:2015 (or later) certified by an Accredited Certification Body to augment and significantly uplift to world class levels our internal capability and capacity in delivering a range of technology projects spanning the refurbishment and upgrading of power stations, as well as green and brown field projects for nuclear, coal, hydro/pumped storage, open and/or combined cycle gas turbine plants, renewables, outage management, transmission, distribution, IT/OT and facilities. Services will be required across all projects and sites being managed through the Group Capital Division.

The Scope of Work outlines the responsibilities and deliverables of the QA/QC Services Provider that will be appointed to provide these services for infrastructure construction projects across Eskom on behalf of GCD. The aim is to ensure that all QA and QC aspects of project development and construction activities are monitored in full compliance with contractual, regulatory, technical, and organisational quality standards to world class levels.

GCD requires QA/QC services in two main categories namely: Generalised and Specialised services. The preferred provider is required to be flexible across the project management and technology specific requirements as needed at projects. A task order draw down method will be used to provide services for the different projects and each task order will contain a specific scope of work for the provision of services.

Skills and knowledge transfer are of the utmost importance to GCD as resources have severely been depleted in the past number of years. The provider will be expected to ensure that skills transfer, mentorship and coaching takes place, focused on the GCD employees, and a plan on how this will be achieved must be part of the submission.

It is expected that GCD personnel will be provided with the highest levels of training and mentoring related to: formulation and management of world class levels of quality assurance systems, processes, policies, procedures, tools and maintenance thereof, formulation of quality inspection systems, processes, policies, procedures, tools and maintenance thereof, enhanced exposure to and detailed knowledge of inspection and test equipment, inspection & test responsibilities, asset integrity, welding/NDE, metallurgical investigations, hazardous operations studies and analysis, risk assessments, due diligence and supplier assessment audits (inclusive of audit systems formulation), certification, documentation and data management, meetings and communication.

The duration of the contract will be four (4) years.

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## Objectives

- To augment, integrate and capacitate the existing GCD teams with specialised QA/QC services. There must be a structured skills transfer program established for identified GCD resources and an emphasis and focus on skills transfer and training of these GCD teams.
- To establish and maintain a robust QA/QC framework that ensures all deliverables meet defined standards.
- To review existing methodology, identify gaps and update or develop new processes and procedures to integrate QA/QC management into projects planning, design, procurement, construction, commissioning, and handover processes.
- To minimise defects, rework, and associated risks, ensuring long-term performance and reliability of infrastructure assets.
- Promote a culture of quality across the project teams and stakeholders.
- Ensure alignment with the latest ISO 9001 and relevant industry and regulatory standards including Eskom requirements.
- Provide traceability, accountability, and continuous improvement through effective QA mechanisms.
- To prevent and detect non-conformances during execution.
- To validate that project outputs, meet required specifications and standards.
- To ensure consistent inspection, verification, and documentation across contractors and suppliers.
- To support timely issue resolution and minimise rework and quality-related risks.

## Key Expectations

- a) Undertake a detailed gap analysis of existing QA/QC systems, tools, processes, policies, procedures, as well as our GCD QA/QC staff competence and skills level.
- b) Develop a full plan of action to upgrade our QA/QC systems, policies, tools, processes, procedures to world class levels.
- c) Develop a training and upskilling programs for our GCD QA/QC staff to get them to world class levels. Development programs of GCD staff must be trackable, measurable and fully documented.

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- d) Support GCD with appropriately experienced staff to be embedded in the GCD head office structures if needed, to help set up and maintain our QA/QC systems and assist GCD to bring projects up to world class levels.
- e) Deploy teams required by GCD to triage projects to assist with corrective actions.
- f) Deploy teams to newly formed projects for the establishment and implementation of QA/QC systems, policies and procedures.

## **2. Supporting Clauses**

### **2.1 Scope**

The Scope of Work outlines the responsibilities and deliverables of the QA/QC Services Provider that will be appointed to provide these services for infrastructure construction projects across Eskom on behalf of GCD.

#### **2.1.1 Purpose**

The aim is to ensure that all QA and QC aspects of project development and construction activities are monitored in full compliance with contractual, regulatory, technical, and organisational quality standards to world class levels.

#### **2.1.2 Applicability**

This document shall apply throughout Group Capital Division.

#### **2.1.3 Effective date**

The document is effective from the authorisation date.

### **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] All Eskom related Policies, Standards and Procedures
- [2] 32-727 Eskom SHEQ Policy
- [3] 32-1034 Eskom Procurement and Supply Chain Procedure

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- [4] ISO 9000 Quality Management Systems Fundamentals and Vocabulary
- [5] ISO 9001 Quality Management Systems Requirements
- [6] ISO 19011:2018 Guidelines for Auditing Management Systems
- [7] Deliver SHEQ PCM's
- [8] ISO 17020 Inspection and Testing Services
- [9] ISO 17021 Accreditation and Certification Bodies
- [10] ISO 17025 Laboratory Accreditation and Certification

### 2.2.2 Informative

- [11] Eskom Value Chain
- [12] Deliver Project Methodology
- [13] ISO10005:2018 Guidelines to Development of Quality Plans
- [14] Industry standards (e.g. SANS, ASME, API, IEC, BS).
- [15] Client-specific quality guidelines and procedures.
- [16] Relevant legislation and regulatory requirements.

### 2.3 Definitions

None

### 2.4 Abbreviations

Abbreviation	Explanation
API	American Petroleum Industries
ASME	American Society for Mechanical Engineers
BS	British Standard
C&I	Control & Instrumentation
CA	Corrective Action
GCD	Group Capital Division
Gx	Generation Division
ISO	International Organisation for Standardisation
IT/OT	Information Technology/Operational Technology
ITP/ITP's	Inspection and Test Plan/s

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Abbreviation	Explanation
iWBS	Integrated Work Breakdown Structure
KKS	Kraftwerk-Kennzeichensystem
KPI	Key Performance Indicator
MIR	Material Inspection Report
NCR/NCR's	Non-conformance Report/s
NDT	Non-Destructive Techniques
QA	Quality Assurance
QC	Quality Control
QCP/QCP's	Quality Control Plan/s
QMP	Quality Management Plan
QMS	Quality Management Systems
SANS	South African National Standards

## 2.5 Roles and Responsibilities

As defined in the Contract.

## 2.6 Process for Monitoring

As defined in the Contract.

## 2.7 Related/Supporting Documents

None

## 3. Scope of Work

### 3.1 Scope Technologies and Disciplines

Service providers are required to note the areas of technologies and disciplines that will be covered by GCD, outlined below.

- Coal Fired Technologies
- Hydro and Pumped Storage Technology
- Open or Combined Cycle Gas Turbines Technology
- Heat Recovery Steam Generator Power Technology

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- Renewables Technologies
- Energy Storage Technologies
- Nuclear Technologies
- Emissions Abatement Technologies
- Civil and structural design applicable to specific Technologies
- Power Transmission and Distribution engineering, technologies for infrastructure development and execution and associated works
- Marine Environmental adherence
- Commercial Property
- Gas Power Generation Technologies
- Pipelining technologies (water, gas etc.)
- Mining Technology and developments
- Existing building infrastructure refurbishment enhancement and modernisation.
- IT/OT
- Facilities

### **3.2 Key Expectations: Seven Quality Elements that will be required from the QA/QC Service Providers**

#### **3.2.1 Analysis & Proposal**

- The provider will be required to undertake a full/detailed gap analysis on the GCD quality life cycle in terms of technology & tools, skills, competence & resources, policies, procedures & processes and for specific projects.
- Identify a suitable model for the quality function and develop & propose an implementation plan to upgrade our QA/QC systems, policies, tools, processes, procedures & skills to world class levels.

#### **3.2.2 Quality Engineering**

- The provider shall make available a team and individuals, capable of reducing any new project scope to a full set of concise and appropriate detailed specifications.

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### 3.2.3 Evaluation & Inspection & Validation

- The provider shall make available their full capability of evaluating Service and Product offerings as well as a business inspection and validation of commercial offerings.

### 3.2.4 Integration

- The provider shall establish a model for full and seamless integration between quality and all other GCD project and support functions **as well as** establishing a fully integrated data/technology platform to be used by GCD's entire supply chain, including suppliers, contractors, sub-contractors, GCD itself, customers, and clients as well as other stakeholders. This data structure must be fully linked to Plant, work, organisational/structural and process classification coding, resulting in an Integrated Work Breakdown Structure (iWBS) per Project.
- This data shall be real-time, up-to-date, concise, objective, and complete in terms of cost, scope, and schedule. The provider shall ensure full ownership and access to all data for the Employer (Eskom) during and after contract completion, to an accepted data Structure.

### 3.2.5 Quality Sustainability & Improvements

- The provider shall make available **1.) resources** and **2.) organisational units** and **3.) service offerings** to establish and operate in conjunction with GCD and run an office independent of projects maintaining operations for: tracking of supplier skills & performance, optimising and reduction of processes, strategic alignment of GCD goals and ensure skills transfer to the GCD team for the duration of the contract.

### 3.2.6 Execution

- The provider shall make available **1.) resources** and **2.) organisational units & 3.) service offerings** to establish and operate in conjunction with GCD a full quality function for GCD projects and ensure skills transfer to the GCD team for the duration of the contract.

### 3.2.7 Project Closure

- The provider shall supply, establish and operate a full project closure quality capability.

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Each of the above elements shall support flawlessly the other six elements, and all seven elements must be structured to flawlessly integrate into one whole system.

The Service Provider will report operationally to the Task Order requisitioner and functionally through the applicable Quality Unit to Group Capital Quality (Head Office).

### **3.3 Quality and Related Service Competence required**

The scope covers the quality assurance and control activities for the entire life cycle of a project up and until site construction, erection, testing and document compilation activities that will be performed by the provider in conjunction with the GCD teams.

The required services will cover new construction projects, maintenance projects and associated technologies throughout the life cycle of such projects and services are listed below (not exclusive):

- Quality Engineering Services
- Procurement Quality Assurance
- Expediting Services,
- Storage & Preservation
- Planning & inspections of movement of works, including Packaging & Tie-down, Handling Lifting & Slings, Transport & Route Risk assessments, Dispatch & Receipt.
- Quality Control Services i.e. Inspections Services
- Project Quality Control Services i.e. cover new construction projects, refurbishment, outage, maintenance, operations and site services
- Commissioning Quality
- Quality Audits and Supplier Assessments
- Quality & Technical Incident Investigations
- Quality Key Performance Reporting and Risk Assessments
- Quality Awareness, Communications and Change management
- Data integration and documentation
- ISO based Management Systems
- Training in Quality and latest ISO standards

Quality Assurance & Quality Control activities shall be a joint responsibility of the providers and GCD Project Manager/Contracts manager and shall be conducted and reported on via Discipline Quality Managers, Quality Assurance Advisors & Quality Control Inspectors assigned to the Project / Site Quality Managers in particular.

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**Areas of focus, capacitation and skills transfer:**

- a) Defining QA/QC management intervention requirements and intervention types. Inspection activities shall be “planned” based on code / specification or “targeted” based on previous inspection results or “surveillance” activities that are the day-to-day role of construction supervisors.
- b) Completing intervention and verification activities. Inspection and Test Plan (ITP) approval and facilitation of kick off meetings. Coordination in issuing of inspection and test notifications and Contractor notifications of inspection and / or test activities.
- c) Reporting responsibilities. Registration, filing and distribution of ITP activities. Registration of attended inspections and notifications issued.
- d) Measurement and analysis activities relative to,
  - The technical integrity of product,
  - The effectiveness and efficiency of work processes and personnel,
  - Potential schedule delays,
- e) Final (pre-safety clearance) inspection, planning and reporting on final Inspections.
- f) Stopping the work. Where safety, quality and / or technical integrity are uncontrolled or nonconforming to the point of potentially or continually producing unsafe, nonconforming products/services; initiate and issue a STOP WORK ORDER accordingly.

**3.4 Detailed Services required**

The service provider shall, in conjunction with GCD teams, be jointly responsible for the following QA/QC functions:

**3.4.1 Quality Assurance (QA) Responsibilities**

- Develop and maintain a Project Quality Management Plan (QMP) for the Division as well as all projects in alignment with ISO 9001 and internal utility standards.
- Ensure quality requirements are embedded into all project management and engineering procedures.
- Conduct quality planning sessions with project teams and stakeholders.
- Review and approve Contractors’ and Suppliers’ Quality Plans and Inspection & Test Plans (ITPs).
- Establish and maintain a Document Control process to manage quality documentation.

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- Coordinate and manage internal and external quality audits.
- Monitor compliance with legal, regulatory, and contractual obligations related to quality.
- Provide training and awareness sessions on quality policies and best practices.
- Ensure that the Quality Assurance of System handover to operations is maintained across all Project Assets.
- Collation and management of all relevant data required to enable the compilation of the Databooks in line with the Employer's System Handover Management protocols.
- Manage Databooks Schedule and Data Book database.

#### 3.4.1.1 QA Implementation

##### 1. Initiation & Planning

- Support and advise on the appointment of QA Managers and teams
- Define project specific quality objectives and KPIs
- Review and assist with development of QA Implementation Plans
- Assist with Identifying applicable codes, standards, and project requirements.
- Assist with preparation of project specific Quality Risk Registers

##### 2. Quality System Establishment

- Support and advise on the Development of Project Quality Management Plans (QMP)
- Review, identify gaps and assist with revision or newly developed quality documentation and control procedures.
- Assist with defining QA roles and responsibilities and document.
- Review and assist with establishment of an appropriate QA document control system, making use of existing Eskom systems.

##### 3. Design Phase Integration

- Review, identify gaps and/or develop new and improved design quality procedures.
- Assist with performing design QA reviews (peer reviews, audits)
- Review and verify design outputs against client requirements
- Establish a system for monitoring design contractors QA compliance

##### 4. Procurement Quality Assurance

- Ensure that quality forms part of the cross functional procurement process.
- Provide quality requirements input into the procurement process.
- Assist with the review and approval of vendors' QA plans and ITPs

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- Track material compliance and certifications
- Ensure traceability of procured items

#### 5. Construction QA Implementation

- Assist and enable GCD to enforce contractor compliance with approved QMP and ITPs.
- Assist and document methodology related to conducting of regular site quality audits.
- Assist with verification of workmanship and adherence to specs.
- Monitor and resolve Non-Conformances (NCRs).
- Establish a system to assist with maintaining inspection records and test reports.

#### 6. Quality Audits and Monitoring, establish a system to ensure:

- Implementation of monthly internal QA audits
- Tracking and reporting QA KPIs and trends
- Dashboard reporting for management
- Escalation process to report critical issues

#### 7. Commissioning & Handover QA, establish a system to ensure:

- Verification and completion of snag lists and NCRs
- Final QA inspections and testing
- Compilation of final QA dossiers (as-built drawings, certificates, records)
- Obtain client and authority approvals

### 3.4.1.2 QA Tools and Systems

- Audit and Inspection Management System
- NCR and Corrective Action Register
- QA KPI Dashboard
- Quality Checklists and Forms

### 3.4.1.3 QA Performance Monitoring

QA performance measures to be developed for monitoring progress with the use of KPIs such as (not exclusive):

- Percentage of work completed with no NCRs
- Percentage of audit findings resolved on time
- Percentage of suppliers pre-qualified based on QA performance
- Time to close NCRs

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- Customer/client satisfaction rating (post-handover)

### 3.4.2 Quality Control (QC) Responsibilities

- Inspect and verify materials, components, and workmanship against approved drawings, specifications, and codes.
- Implement inspection and testing regimes across all construction and fabrication activities.
- Monitor contractor and subcontractor QC performance and compliance.
- Maintain and manage the Non-Conformance Report (NCR) system and facilitate timely resolution of issues.
- Ensure traceability of materials and components where applicable.
- Participate in hold points, witness points, and final acceptance inspections.
- Compile and maintain quality records for project close-out and handover.

#### 3.4.2.1 QC Implementation

1. Preparation & Mobilisation
  - Support and advise on the appointment of QC personnel.
  - Assist with defining the scope of inspections and QC procedures.
  - Support the GCD team and attend notified inspections.
  - Review, identify gaps and revise/create new applicable standards and acceptance criteria.
  - Assist with the review and development of Inspection and Test Plan (ITP) templates.
  - Train the GCD team on QC roles and tools with an emphasis on skills transfer.
2. Document Review & Setup
  - Assist with the review and sign off of QC plans and ITPs.
  - Establish control hold/witness points in conjunction with the GCD teams.
  - Set up NCR system and QC records database.
  - Review, identify gaps and assist in improving inspection forms and checklists.
  - Assist with compilation and review of databooks.
3. Material and Equipment Control, ensure establishment of processes to:
  - Verify supplier certificates and test data.
  - Inspect deliveries on-site for compliance.

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- Maintain material traceability records.
  - Reject and report defective materials.
4. Construction Quality Control, ensure establishment of a system to support:
- The conducting of inspections at defined ITP stages.
  - Identification of supervision hold/witness points with client and authorities.
  - Completion of daily inspection reports.
  - Log and track non-conformances.
  - Verification of corrective actions are implemented.
  - Welding related data capture, progress tracking and reporting.
  - Verification of plant completion against quality record completion and availability.
  - Verification of data entry into weld comprehensive system as per installation drawings.
  - Ensure operation of weld comprehensive system.
  - Ensure correctness KKS numbering.
  - Obtain KKS numbering certificates from Employer's configuration Department.
5. Testing and Commissioning QC, ensure establishment of testing control:
- Witness functional and performance tests.
  - Review test results against design criteria.
  - Ensure testing equipment is calibrated and certified.
  - Validate as-built documentation.
6. Documentation & Handover, ensure the review, gap identification and development of standards that will facilitate:
- Compilation of QA/QC files for closeout.
  - Inclusion of inspection records, material certificates, and NCR resolutions and submitted completed NCR's.
  - Production of quality verification records.

#### 3.4.2.2 QC Tools and Documents

- Inspection & Test Plans (ITPs).
- Material Inspection Reports (MIRs).
- Daily QC Reports.
- Checklists (civil, mechanical, electrical, etc.).
- Non-Conformance Reports (NCRs).

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- Corrective Action Logs (CA).
- Quality Control Dashboards.

#### 3.4.2.3 QC Performance Indicators

QC performance measures to be developed for monitoring progress with the use of KPIs such as (not exclusive):

- Percentage of completed inspections vs planned.
- Number of NCRs raised and resolved.
- Percentage of tests passed on first attempt.
- Inspection response turnaround time.
- Customer Satisfaction index
- Percentage of Rework
- Contractor QC compliance rate.

#### 4. Deliverables

The following deliverables shall be submitted at the agreed intervals or milestones:

- Project Quality Management Plan.
- Quality Audit Schedules and Reports.
- NCR Log and Status Reports.
- Inspection and Test Plans (ITPs).
- Quality Control Checklists and Inspection Reports.
- Monthly QA/QC Performance Reports.
- Final Quality Dossier for Handover.

#### 5. STANDARDS AND REFERENCES

The QA/QC programme shall adhere to the following (as applicable):

- ISO 9001:2015 Quality Management Systems.
- ISO/IEC 17020 and 17025 (for inspection/testing services).
- Industry standards (e.g. SANS, ASME, API, IEC).
- Client-specific quality guidelines and procedures.
- Relevant legislation and regulatory requirements.

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## 6. QA/QC Resource Types

The provider shall allocate highly competent personnel with appropriate qualifications in line with Client requirements and experience in large utility infrastructure projects, including but not exclusive to:

- QA/QC Managers.
- Quality Lead Auditors (Professionally registered)
- Expeditors with Material Management Specialist knowledge
- Technical Quality Incident Investigators
- Quality Engineers (Professionally registered)
- Discipline Quality Inspectors (civil, mechanical, electrical and C&I).
- Document Controller (Quality).

## 7. Reporting

- Weekly QA/QC progress updates to the Project Manager.
- Immediate escalation of critical non-conformances or quality risks.
- Monthly QA/QC dashboard reporting to the relevant project management forums.

## 8. Acceptance Criteria

- All project components conform to approved designs, standards, and specifications.
- All non-conformances resolved and signed off before completion.
- Final Quality Dossier accepted by the client and regulatory authorities.

## 9. Acceptance

This document has been seen and accepted by:

Name	Designation
Portia Matshitela	Project Quality Manager – Group Capital Projects Kusile Power Station
Brenda Mgidlana	Project Quality Manager – Group Capital Projects Medupi Power Station
Thembinkosi Mbolekwa	SHEQ Manager – Gx Coal 1
Rolland Ngugama	Quality Manager – Strategy & Sustainability
Pierre Coulson	Middle Manager SHERQ

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## 10. Revisions

Date	Rev.	Compiler	Remarks
August 2025	0.1	AJ Booth	Comments from all GCD Stakeholder were included.

## 11. Development Team

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

- K Sibande
- L Xaba

## 12. Acknowledgements

N/A

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