

# **SPECIFICATION**

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#### 1. INTRODUCTION

The intention of this specification is to specify and describe the minimum quality requirements for all existing and potential Eskom suppliers and define the quality criteria for the selection, evaluation, registration, monitoring, and auditing of suppliers. Eskom's position is to partner with suppliers who fully demonstrate commitment to the development, implementation, and maintenance of a quality management system (QMS) that conforms to the requirements of ISO 9001. The priority is to encourage suppliers to continually improve their QMS and enhance service delivery by implementing, and conforming to, ISO 9001.

# 2. SUPPORTING CLAUSES

#### 2.1 SCOPE

# 2.1.1 Purpose

The purpose of this specification is to outline the requirements according to which suppliers shall

- develop,
- implement,
- maintain, and
- continually improve

a quality management system (QMS) based on ISO 9001, with the intention that suppliers continuously adhere to Eskom's requirements.

## 2.1.2 Applicability

This specification shall apply throughout Eskom Holdings Limited divisions, suppliers, and subsuppliers and shall form part of all Eskom requests for information (RFIs)/requests for quotation (RFQs)/requests for proposal (RFPs), including contracts for the procurement of products and services.

#### 2.1.3 Effective date

Date of authorisation of the specification.

#### NORMATIVE/INFORMATION REFERENCES 2.2

Parties 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
- [2] ISO 10005 Quality Management Systems Guidelines for Quality Plans

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#### 2.2.2 Informative

- [3] ISO 9000 Quality Management Systems Fundamentals and Vocabulary
- [4] 32-727: Safety, Health, Environment, and Quality (SHEQ) Policy
- [5] ISO 10006 Quality Management Systems Guidelines for Quality Management in Projects
- [6] ISO 9004 Managing for the Sustained Success of an Organisation A Quality Management Approach
- [7] 32-1033: Eskom's Procurement and Supply Chain Management Policy
- [8] 32-1034: Eskom's Procurement and Supply Chain Management Procedure
- [9] PPPFA: Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000)
- [10] CIDB 1004: Best Practice Guideline A4: Evaluating Quality in Tender Submissions
- [11]QM-14: Supplier Auditing, Including the Qualification and Requalification of Strategic Suppliers
- [12]IAEA Safety Standard GS-R-3.1 Application of the Management System for Facilities and Activities
- [13]QM-15: Supplier Assessment Procedure
- [14] SANS 294 Construction Procurement Processes, Methods, and Procedures

#### 2.3 DEFINITIONS

The vocabulary of ISO 9000 and the following definitions apply in the application of this specification.

- **2.3.1 Component:** a constituent part of the product or sub-assembly of the product. The product may comprise multiple individual components.
- **2.3.2 Hold point:** a predetermined stage in the quality control plan (QCP) beyond which work shall not proceed without the attendance of, and written authorisation of, an Eskom representative or Eskom inspection agency, whichever is applicable.
- **2.3.3 Inspection agency:** an organisation or person appointed by Eskom for the purpose of performing quality assurance/quality control, monitoring, or inspection services.
- 2.3.4 Non-conformance: a deficiency in material, composition, characteristic, or performance that renders the quality of an item, component, or product unacceptable or indeterminate. The term also covers a deficiency in, or deviation from/non-adherence to, the quality management system requirements, prescribed production processes, and/or related documentation such as procedures and instructions.
- **2.3.5 Product:** the term "product", in addition to the ISO 9000 definition, shall be interpreted as also meaning commodities, items of plant, equipment, material, services, etc.

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**2.3.6** Quality control plan: a document specifying the activities to be inspected throughout the execution of the project, inclusive of test methods, procedures, and acceptance criteria. (This term is equivalent to QIP and ITP.)

- **2.3.7** Requirement: the need or expectation that is stated, generally implied, or obligatory. Requirements are generally specified in the purchase order and/or contract documentation, but may not be limited to these.
- 2.3.8 Supplier: is a current or potential supplier, vendor, contractor, consultant, or service provider. A supplier may be a natural or legal person and includes any employee acting within the course and scope of his/her employment or any agent or manager acting for, or on behalf of, or in the interests of, the person registered as supplier on the Eskom supplier database.
- **2.3.9** Sub-supplier: an organisation that provides a product/service to the supplier and/or that enters into a subcontract and assumes some of the obligations of the supplier or prime contractor.
- **2.3.10 Witness point:** a predetermined stage in the quality control plan beyond which work may proceed, provided Eskom or its inspection agency has been formally notified.

#### 2.4 ABBREVIATIONS

| Abbreviation | Explanation                                    |  |  |  |
|--------------|--|--|--|--|
| AIA          | Approved inspection authority                  |  |  |  |
| CA           | Corrective action                              |  |  |  |
| ISO          | International Organisation for Standardisation |  |  |  |
| ITP          | Inspection and test plan                       |  |  |  |
| NC           | Non-conformities                               |  |  |  |
| PA           | Preventive action                              |  |  |  |
| PMI          | Positive material identification               |  |  |  |
| QCP          | Quality control plan                           |  |  |  |
| QMR          | Quality management representative              |  |  |  |
| QMS          | Quality management system                      |  |  |  |
| RFI          | Request for information                        |  |  |  |
| RFQ          | Request for quotation                          |  |  |  |
| RFP          | Request for proposal                           |  |  |  |
| SHEQ         | Safety, health, environment, and quality       |  |  |  |
| WPS          | Welding procedure specifications               |  |  |  |
| WQR          | Welder's qualification record                  |  |  |  |

#### 2.5 ROLES AND RESPONSIBILITIES

Roles and responsibilities for this standard are defined within the text.

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# 2.6 PROCESS FOR MONITORING

Application of this standard throughout Eskom shall be audited as per the audit schedule.

# RELATED/SUPPORTING DOCUMENTS

Documents superseded by this standard: all divisional and business unit supplier quality requirements standards and/or specifications.

# Forms and templates:

- [1] 240-68099512 Tender and Contract Quality Requirements for QM 58 and Quality Requirements for ISO 9001 Standard (Form A)
- [2] 240-109253698 Template for a Typical Contract Quality Plan
- [3] 240-109253302 Quality Control Plan/Inspection and Test Plan
- [4] 240-109251490 Corrective Action Request (CAR)
- [5] 240-109254030 Concession: Contractor's Application for Eskom Inspection of the Works/Part of the Works
- [6] 240-109254710 Concession: Application for Defect (Concession) Acceptance
- [7] 240-109254324 Defect Notification

# PRE-CONTRACT AWARD: QUALITY REQUIREMENTS

The quality assessment criteria and Form A of this specification will be selected and completed by an Eskom representative who will identify the applicable supplier quality requirements to be met.

Form A of this specification shall be signed by the supplier responding to an Eskom invitation to tender.

# 3.1 SUPPLIER AND SUB-SUPPLIER QUALITY MANAGEMENT SYSTEM REQUIREMENTS

- 3.1.1 The supplier and sub-supplier shall have a formal quality management system in place in accordance with the requirements of this specification or similar to the requirements of this specification.
- 3.1.2 Such a formal system shall consist of the appropriate documentation such as work procedures, work instructions, method statements, work flow documentation, etc., as the case may be. This requirement constitutes the most basic quality management system requirements.
- 3.1.3 Unless specifically excluded in the quality assessment criteria, as per the categories of quality requirements (Category 1, 2, 3, or 4), the supplier shall have a fully documented, implemented, and maintained quality management system that complies with the ISO 9001 standard. In the event that the supplier invariably requires the assistance of a sub-supplier in order to realise its own supply obligations, the aforementioned requirement applies equally in all cases where any such sub-supplier's scope of responsibility includes the provision of any

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of the following activities, namely, design and development, manufacturing, testing, storage, delivery, installation, commissioning, and project management.

- 3.1.4 Unless specifically excluded from the quality assessment criteria, such a quality management system shall carry a valid ISO 9001 certificate from an accredited certification body, as indicated in the applicable Eskom invitation (this requirement applies equally to both the supplier and any/all manufacturing third-party organisations mentioned above).
- 3.1.5 Eskom reserves the right to request and perform necessary assessments at sub-supplier facilities.
- 3.1.6 The supplier shall be responsible for defining the specific quality control elements applicable to the respective sub-supplier's scope of work/supply and ensure that its sub-supplier(s) quality programmes support Eskom requirements.
- 3.1.7 The supplier shall inform Eskom of any proposed changes to the quality management system or staff that will affect the quality system prior to implementation of these changes.

# 3.2 QUALITY PLAN

The information in this section constitutes the minimum requirements for a quality plan.

- All individual products and processes shall have a documented, implemented, and maintained contract quality plan and/or quality control plan (inspection and test plan).
- All production and/or service provision shall be carried out in accordance with a documented and agreed contract quality plan (CQP) and/or quality control plan (QCP)/inspection and test plan (ITP).
- The supplier shall plan for the required quality-related activities and interfaces within the supplier's quality system in order to demonstrate its ability towards both controlling and meeting specified Eskom requirements.

# 3.2.1 Contract quality plan

The supplier shall require sub-suppliers to submit project quality plans (PQPs)/contract quality plans (CQPs) and associated documentation in accordance with the requirements of project quality management system processes applicable to the sub-supplier's scope of work.

The supplier shall, where applicable, based on scope of work criticality, ensure that procurement documents clearly and unambiguously require sub-supplier submission of a sub-supplier CQP for supplier and Eskom review.

The supplier shall ensure that sub-supplier CQPs are developed and implemented in accordance with the ISO 10005 Quality Management System Guidelines for Quality Plans. In addition to the elements specified in ISO 10005, the supplier's and or sub-suppliers' CQPs shall include the following:

 The management of records, including material tests, positive material identification (PMI) testing, material certification, etc.

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• The provision for free and uninhibited access by the supplier and/or personnel at the time of inspection.

- The proposals for submission of final documentation, the final manufacturing data book, prior to shipment.
- The management of the welder's qualification record (WQR), welding procedure specifications (WPS), and procedures qualification records (PQR) that will be used in the performance of work for supplier review and acceptance prior to commencing manufacture. Welders shall be qualified to the specified Codes of Construction for the applicable procedures. The requirements for qualification shall be specified by the supplier, and welder records shall be maintained by sub-suppliers performing the work.
- The special installation procedures and other required fabrication or manufacturing procedures (that is, those required for post-weld heat treatment, tube rolling, coatings, etc.) that will be used in the performance of work shall require supplier review and acceptance prior to commencing manufacture. Personnel carrying out special processes (for example, NDE, welding, coating, heat treatment, etc.) where the results cannot be fully verified by subsequent inspection and test shall be suitably qualified and, where applicable, registered with statutory bodies as legally required, that is, as radiographic workers to conduct radiography. The requirements for the qualification shall be specified, and personnel records shall be maintained in accordance with the Project Quality Personnel Qualification Specification and, where applicable, legal requirements.
- The personnel required to perform special processes shall be certified competent through a
  certificate of competency in accordance with the company's internal training management and
  competency control procedures or an external certification body (for example, NDT) through an
  accredited service provider as per SETA requirements.
- All personnel who perform activities that affect quality shall have their training needs identified and documented. The required training shall be implemented in accordance with the company's training management and competency control procedures. All the training certificates shall meet the SETA requirements in terms of having the unit standard completed and the accreditation number of the service providers.
- Instructions and requirements for equipment and materials storage, preservation, and maintenance, including identification of materials required for preservation and maintenance, are to be provided sufficiently prior to receipt (prior to shipment or earlier) to ensure that appropriate resources are available at the time of delivery.
- Specific quality monitoring and verification activities are to be undertaken on the supplier's subsuppliers.

Supplier and sub-supplier CQPs shall comply with the Eskom Quality Requirements Specifications and shall be submitted prior to the initial scope of work kick-off or initial pre-fabrication meeting and prior to commencement of manufacturing, whichever is earlier.

# 3.2.2 Quality control plan

The supplier shall develop and implement processes and procedures that efficiently and effectively monitor, verify, and document quality of scope of work deliverables. The supplier shall ensure that sub-supplier QCPs/ITPs are prepared at a level of detail sufficient to address all quality-control-related activities in chronological order, from contract review through materials verification, manufacturing, fabrication, assembly, final testing, documentation, and certification. In addition,

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the supplier shall ensure compliance with the following requirements:

· All stages of manufacture, fabrication, assembly, and installation shall be controlled by a supplier QCP/ITP that clearly and unambiguously identifies the quality verifications to be performed and special attention to controls related to critical products and services.

- All sub-supplier QCP/ITP activity shall be performed using an Eskom-approved supplier QCP/ITP.
- The sub-supplier QCP/ITP and all documents included with, referred to, or incorporated by reference in, the sub-supplier QCP/ITP shall be submitted for review and comment by the supplier and by Eskom within 30 days after the award of the tender. All supplier and Eskom comments shall be resolved prior to commencing work.
- Inspection and test activity shall not be initiated prior to receipt of DRC 1 status for the subject QCP/ITP.
- · All applicable codes, standards, and relevant acceptance criteria documents are available at the work location, and Eskom representatives on site shall have ongoing access to this information. Workplace documentation shall be available in English and in any workforceappropriate language.

Where activities subject to inspection and test procedures are to be undertaken by a sub-supplier, the QCP/ITP shall make reference to this fact and shall include descriptive details of the subsupplier's involvement. A separate QCP/ITP shall be required for each sub-supplier scope of work.

The supplier shall be ultimately accountable and responsible for the development and proper implementation of all sub-supplier QCPs/ITPs, including those reviewed or developed by subsuppliers.

Eskom reserves the right to select witness and hold points on QCPs/ITPs for Eskom oversight of selected functions and to perform surveillance or audits of the work.

Completed ITPs with the supplier's intervention points will be submitted to Eskom to enable the latter to fill in its preferred intervention points. Once signed, the ITPs and CQPs become addendums to the main contract. These ITPs can be reviewed at Eskom's discretion based on its assessment of the supplier's performance or other risks. The ITPs should cover materials certification, fabrication works, in-process inspections, final acceptance tests, packaging and preshipment/transportation, shipping/transportation inspections where contracted, preservation, site acceptance tests, construction and erection works, and pre-commissioning and commissioning tests.

A quality control plan and an inspection and test plan shall contain the following information:

- Eskom contract number and title
- The supplier's order number
- Identification of the area of works/contract
- Description of the work, with components, item number, and activity date
- QCP/ITP unique number
- The dates on which the activities are due to start and end
- A list of the sequence of operations, including inspection and tests

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• The identification of the specification, drawing number, or procedure for each operation, with reference to the relevant criticality risk rating

- The acceptance criteria, with reference to the technical specification, in-house, national, or international standard, with the relevant clause number for each operation
- The inspection and test activities that the supplier has nominated for its hold and witness points
- Provision for the inclusion of hold and witness points nominated by Eskom and/or its authority/agency
- Provision for hold and witness point acceptance by date and signature for all parties having intervention in the plan
- Inspection and test records to be generated by the supplier for each operation and an indication of records to be provided to Eskom (as applicable)

The supplier shall require sub-suppliers to submit QCPs/ITPs and associated documentation applicable to the sub-supplier scope of work. Any changes made to the QCP after submission must be resubmitted to Eskom for further review. The supplier shall ensure that all sub-supplier QCPs/ITPs are in compliance with the Eskom Mandatory Quality Requirements Specifications, including, but not limited to, the following requirements:

- Clear and unambiguous description of the equipment and location(s) at which each activity will take place, including facility location(s)
- Identification of quality verification activity and stage
- Details of reference documents, procedures, or method statements to be utilised in performance of the activity, including specific reference to actual sections and pages of procedures, standards, instructions, specifications, etc.
- Definition of acceptance criteria
- Listing of certifying or verifying documents generated to provide evidence of compliance with specified requirements; documents are to be provided using the proper Eskom document numbering requirements
- Identification of supplier and sub-supplier (where applicable) third-party/approved inspection authority (AIA) and Eskom inspection activities defined in terms of witness, hold, document review, and verification monitoring points and provision for sign-off of each of the abovementioned parties for each intervention point
- Qualification requirements for quality control inspectors, including any third-party/AIA inspectors
- Listing of all proposed test procedures
- Acceptance criteria for each inspection or test in alignment with specified tolerances
- A section for signed acceptance of the QC/ITP by the supplier, sub-supplier (where applicable),
   and Eskom prior to commencement of work
- Inspection or testing witness and hold points, including, but not limited to, factory acceptance test and package acceptance test, witness, and hold points

A quality kick-off meeting will be held at the start of the contract and, if required, at the start of each subsequent phase.

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The supplier shall arrange coordination meetings with Eskom prior to placement of orders for items or equipment to ensure that all technical and commercial requirements are clear and understood. Fourteen days' advance notice of meetings shall be given to Eskom.

Supplier inspection personnel, including inspection agency personnel, shall be competent and qualified to perform inspection and testing assignments. Mobilisation of all such personnel shall be in compliance with the Project Quality Personnel Qualification Specification.

The supplier shall ensure that sub-suppliers are provided with comprehensive, clearly written, and unambiguous inspection and testing protocols, including processes, procedures, and methods that shall include, but not be limited to, the following:

- Requirements for inspection checklists and inspection assignments, with lists of items to be inspected
- Inspection and testing report format, report content, schedule for report processing and distribution, and report retention requirements
- Inspection and test report results response tracking (log) and resolution of non-conformance in inspection and test processes, procedures, or methods and non-conformance identified in inspection and test results
- Associated FMECA reports relating to the equipment and sub-systems (if applicable)
- HAZOP study report, as applicable

The supplier shall establish processes and procedures for formal assessment of sub-supplier inspection and testing programmes. These shall include review of sub-supplier inspection reports Additional formal assessment of manufacturing, and other quality control documentation. fabrication, and assembly facility operations shall be conducted by the supplier to ensure continuing suitability, adequacy, and effectiveness of the sub-supplier's inspection and testing programmes. Assessment frequency shall be established in consideration of the sub-supplier scope of work, criticality of scope of work deliverables, and performance information. The assessment scope and schedule shall be developed in consultation with Eskom.

Supplier processes and procedures for verification of supplier and sub-supplier purchased product compliance with specifications shall obtain document return/review code (DRC 1) status prior to implementation.

The objective is to finalise any outstanding procedural or other issues before proceeding to deliver the works.

Eskom, in consultation with the supplier, develops an agenda for the meeting, and Eskom will keep minutes of these meetings.

Mandatory pre-inspection meetings will be convened by Eskom or its inspection agency or AIA to be attended by the supplier's and sub-supplier's representatives, including their quality representatives who will be involved in the works, and records are to be kept.

Eskom reserves the right to appoint resident quality inspectors who can be based at the supplier's or sub-supplier's premises and on site where the work is being performed. The supplier is expected to provide workspace at no cost to Eskom for the inspector, as required.

Eskom may appoint any organisation it prefers to perform quality assurance and quality control activities, either in the capacity as an AIA or inspection agency, on the works contracted to the supplier, and the supplier or its sub-suppliers may not object, prevent, hinder, undermine,

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circumvent, question, discredit, or in any way make it impossible for such organisation to carry out its work on behalf of Eskom.

# 4. PRE-CONTRACT AWARD: QUALITY REQUIREMENTS CATEGORIES (1, 2, 3, AND 4)

Eskom supplier quality requirements for all existing and potential suppliers and sub-suppliers are classified into four categories. The following is the minimum documentation for Categories 1 to 4:

# 4.1 CATEGORY 1: QUALITY REQUIREMENTS

- The supplier shall complete and sign **Form A** (Enquiry/Contract/Quality Requirements for QM 58 and ISO 9001).
- The supplier shall submit a copy of the ISO 9001 (or the latest applicable revision) certificate. The QMS should drive all the supplier's business management processes to ensure that all of Eskom's requirements are fully met on a consistent basis.
- The supplier shall submit one copy of an internal management system audit report. The
  audit report must include non-conformity (NC), corrective action (CA), and preventive action
  (PA) reports.
- The supplier shall submit one copy of an **external management system audit** report. The audit report must include non-conformity, corrective action, and preventive action reports.
- The supplier shall submit a **draft contract quality plan**. The plan must address the minimum requirements as per ISO 10005.
- The supplier shall submit an example of an inspection and test plan (ITP) or quality control
  plan (QCP). The plan must address the minimum requirements as per ISO 10005 (if
  applicable).
- The supplier shall submit a copy of the **appointment letter and CV/résumé** of its quality management representative (QMR).
- The supplier shall submit copies (minimum three) of its **customer satisfaction survey** reports. The reports must not be more than two years old.
- The supplier must provide evidence in the form of a proposal and/or assessment results of any recognised national or international **business excellent model**, **should it exist**.

<u>NB:</u> specific requirements per tender will be selected using the **Quality Assessment Criteria** document.

#### 4.2 CATEGORY 2: QUALITY REQUIREMENTS

- The supplier shall complete and sign Form A (Enquiry/Contract/Quality Requirements for QM 58 and ISO 9001).
- The supplier shall submit objective evidence of a developed and implemented QMS that complies with ISO 9001 (or the latest applicable revision). The following documents (approved/signed copies) shall be submitted:
  - Quality management system manual

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- Quality policy
- Control of documents procedure
- Control of records
- Internal audit procedure
- Control of non-conformity products or services procedure
- Corrective action procedure
- Preventive action procedure

The QMS should drive all the supplier's business management processes to ensure that all of Eskom's requirements are fully met on a consistent basis.

- The supplier shall submit one copy of an internal management system audit report. The
  audit report must include non-conformity (NC), corrective action (CA), and preventive action
  (PA) reports.
- The supplier shall submit a **draft contract quality plan**. The plan must address the minimum requirements as per ISO 10005.
- The supplier shall submit a draft inspection and test plan (ITP) or quality control plan (QCP). The plan must address the minimum requirements as per ISO 10005 (if applicable).
- The supplier shall submit a copy of the **appointment letter and CV/résumé** of its quality management representative (QMR).
- The supplier shall submit copies (minimum three) of its customer satisfaction survey reports.
   NB: specific requirements per tender will be selected using the Quality Assessment Criteria document.

# 4.3 CATEGORY 3: QUALITY REQUIREMENTS

- The supplier shall complete and sign Form A (Enquiry/Contract/Quality Requirements for QM 58 and ISO 9001).
- The supplier shall submit objective evidence of a developed QMS that complies with ISO 9001 (or the latest applicable revision). The following documents (approved/signed copies) shall be submitted:
  - Quality management system manual
  - Quality policy
  - Control of documents procedure
  - Control of records
  - Internal audit procedure
  - Control of non-conformity products or services procedure
  - Corrective action procedure
  - Preventive action procedure

The QMS should drive all the supplier's business management processes to ensure that all of

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Eskom's requirements are fully met on a consistent basis.

- The supplier shall submit a draft contract quality plan. The plan must address the minimum requirements as per ISO 10005.
- The supplier shall submit a draft inspection and test plan (ITP) or quality control plan (QCP). The plan must address the minimum requirements as per ISO 10005 (if applicable).
- The supplier shall submit a copy of the appointment letter and CV/résumé of its quality management representative (QMR).
- The supplier shall submit copies (minimum three) of its customer satisfaction survey reports.

NB: specific requirements per tender will be selected using the Quality Assessment Criteria document.

# 4.4 CATEGORY 4: QUALITY REQUIREMENTS

- The supplier shall complete and sign Form A (Enquiry/Contract/Quality Requirements for QM 58 and ISO 9001).
- The supplier shall submit a quality method statement based on ISO 9001 (or the latest applicable revision).
  - The method statement should address all the supplier's business management processes to ensure that all of Eskom's requirements are fully met on a consistent basis.
- The supplier shall submit a copy of the appointment letter and CV/résumé of its quality management representative (QMR).
- The supplier shall submit copies (minimum three) of its customer satisfaction survey reports.
- The supplier shall submit a signed quality policy.

NB: specific requirements per tender will be selected using the Quality Assessment Criteria document.

# POST-CONTRACT AWARD

#### CONTRACT EXECUTION 5.1

The supplier shall submit the following documents within 30 days after the contract date, prior to the commencement of work, for acceptance by Eskom:

- The supplier shall complete a QCP before contract award. This shall be reviewed and signed off by Eskom within 30 days after contract award.
- The supplier shall complete a quality control plan and ITP(s) for review and acceptance by Eskom prior to the commencement of any work, inclusive of subcontracted work, within 30 days after contract award.
- Equipment lists and an indication of pressurised components and systems
- Method statements for works (describing how work will be executed)

Note: these plans are to be compiled in line with Eskom's requirements and will have to be discussed with, and approved by, Eskom prior to any work commencing.

#### CONTROLLED DISCLOSURE

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- Correspondence shall be directed to the project manager.
- Mandatory quality review meetings are to be convened by the nominated project quality manager or his/her representative for the contract.
- Monthly quality performance and management reports are to be prepared by the supplier during contract execution. The content of these reports shall be agreed by Eskom when submitted to Eskom on a monthly basis.

# 5.2 SUPPLIER QUALITY PERFORMANCE MONITORING PHASE

During the contract execution phase, suppliers shall be monitored by Eskom for performance on quality-related aspects.

The outcomes of such monitoring will enable Eskom to take any appropriate actions pertaining to the supplier.

Monitoring shall be carried out periodically by Eskom or at predetermined intervals during the execution of a contract.

Monitored key performance areas include the following:

- Quality
- Delivery
- Design
- Cost
- Management system

Subsequent key performance indicators associated with these areas will include the following:

- Non-conformance monitoring
- Audit and assessment evaluation scoring
- Management system compliance and accreditation
- Achievement of delivery targets as per contractual agreements
- Process improvements
- Corrective and preventive action response and closure

# 6. STANDARD CONDITIONS

# 6.1 ESKOM RIGHTS OF ACCESS

#### Eskom:

shall be granted electronic and hard-copy access to all quality plans, procedures, documentation, and other quality records relating to the work, including, but not limited to, data extracts;

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reserves the right to review, inspect, and audit any or all parts of the supplier's QMS, as well as
any documentation, materials, or equipment associated with the work, at any time or project
work location; and

reserves the right to carry out assessments and audits on all new suppliers and sub-suppliers.

# The supplier:

- shall support Eskom's effort to monitor, verify, and/or witness any activities associated with the work at any time;
- shall cooperate with Eskom requests for documentation, records, and inspection and witnessing. Eskom participation in audits, appraisals, assessment of plans, and verification shall be conducted at no extra cost to Eskom;
- shall ensure that a sub-supplier provides access to Eskom to all work procedures, records, and supporting documentation through provision of access to view and photocopy, as required, to support verification of scope of work requirements. Access shall include the ability to photograph Eskom equipment, systems, system components, materials, etc.;
- shall provide access to all quality-related information pertaining to activities performed by itself
  or sub-suppliers, where Eskom might not have participated in the witnessing of their quality
  assurance or control (this refers to inspections, audits, etc. performed by the supplier on its
  own sub-suppliers);
- shall allow Eskom to assess, audit, approve, or reject any sub-suppliers employed by Eskom's suppliers to assist with the product and/or service delivery to Eskom; and
- shall ensure that the above requirements flow down to sub-suppliers.

# 6.2 ESKOM RIGHTS TO INFORMATION

- To expect that the works will be conducted in accordance with the contract between the parties.
- To have access to the supplier's information as determined by applicable legislation.
- Eskom reserves the right to oversee the supplier's audit programmes by participating in selected audits as an observer and by assessing the supplier during key work stages. Eskom will coordinate with the supplier to develop an oversight schedule aligned with the supplier's audit schedule.
- To obtain access to any audit reports of audits performed by the supplier reflected in the audit programme.
- To conduct independent quality audits during all phases of the contract, and the supplier shall provide all resources to support these activities.
- Eskom shall have the right to participate in, or request that, a technical investigation be launched and conducted at the supplier's and sub-suppliers' premises or other sites when risk to Eskom products or service deliverables is identified.
- To participate in, and/or lead, investigations related to incidents involving its products.
- To require from suppliers to be responsible for the cost of re-inspections.
- To withhold payment from suppliers as a result of outstanding non-conformances, irrespective

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of the agreed payment schedule and in accordance with the conditions of contract.

Shall be granted electronic and hard-copy access to all quality plans, procedures, documentation, and other quality records relating to the work, including, but not limited to, data extracts.

- Reserves the right to review, inspect, and audit any or all parts of the supplier's QMS, as well as any documentation, materials, or equipment associated with the work, at any time or project work location.
- Shall carry out assessments and audits on all new suppliers and sub-suppliers.
- Reserves the right to appoint resident quality inspectors who can be based at the supplier's or sub-supplier's premises and on site where the work is being performed.
- Reserves the right to select witness and hold points within all developed supplier QCPs/ITPs for Eskom oversight of selected functions and to perform surveillance or audits of the work.
- Shall be given access at all reasonable times before, during, and after manufacture and before delivery, construction, erection, and commissioning to measure, test, and inspect the products and workmanship, as necessary, at the supplier's premises and at Eskom sites.
- Reserves the right to suspend any pending deliveries by the issuing of a cease delivery order at any time and for any portion of the work that is not being performed in accordance with the specified/agreed requirements.

# 6.3 PRESERVATION AND STORAGE

The supplier shall develop and implement a comprehensive preservation programme consisting of plans, processes, procedures, and actions undertaken for the purpose of planning for, and maintenance of, material deliverables quality. The supplier preservation programme scope includes, but is not limited to, the following:

- Engagement of personnel suitably qualified for oversight of, and (as required) direct implementation of, preservation programme requirements
- Development and implementation of preservation programme training appropriate to work need
- Eskom may make use of its appointed service provider tasked to provide a full suite of services encompassing an online monitoring system and asset tracking during at least, but not limited inspections, testing, shipping, transportation, storage, and to, the following stages: commissioning. The supplier is to enable full access during all of these stages in order to allow the installation of the devices on Eskom-identified products and equipment, which include the sub-supplier's testing facilities, processing plant, and any other processes deemed important towards effective and efficient quality control. Eskom seeks cooperation between the supplier's designers and those of Eskom's service provider in ensuring seamless installation of the device and other associated installations. Moreover, there is also a need to integrate data flows and systems between Eskom and the supplier. Further details are included in the Eskom specifications and works information.
- Review and tracking of compliance with Eskom and supplier engineering specification of preservation requirements
- Review and tracking of compliance with sub-supplier-provided preservation requirements and recommendations

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 Evaluation of prospective temporary and longer-term material storage sites for consistency with preservation programme expectations

- Preservation work plan development and plan execution performance evaluation of all parties engaged for provision of material transportation, handling, or storage services
- Oversight of material quality preservation plan preparation and plan execution performance at all work locations
- Development of a preservation programme records management process, in compliance with Eskom information management requirements, which comprehensively addresses generation, maintenance, and ready access by Eskom to all preservation programme records
- The supplier shall deploy a clearly defined documented programme providing for identification
  of all physical asset pre-operation preservation of quality requirements. In this reference, the
  term "physical assets" should be understood to include bulk materials, including consumable
  items, equipment systems, system components, and any other procured or supplied materials
  or equipment transferred to project control, but not yet deployed for operational purposes.
- Where project responsibility for equipment and materials management has been formally delegated, the supplier's preservation programme shall ensure clear and unambiguous communication of pre-operation preservation of goods quality requirements to sub-suppliers.
- The supplier's preservation programme shall clearly and unambiguously document processes and procedures for efficient and effective monitoring of compliance with programme requirements.
- Compliance monitoring shall commence with ensuring comprehensive consideration of preservation requirements in the engineering instruction and subsequent inclusion of said instruction in procurement documentation and shall be applicable until such time as equipment or materials have been incorporated in an operating or operational system or structure.
- Compliance evaluation frequency shall anticipate transfer of tactical-level responsibility for management of preservation responsibilities between project functional areas, for example, procurement to logistics, logistics to fabrication, fabrication to logistics, logistics to construction, etc., and shall, in similar fashion, anticipate transfer of support for tactical-level responsibility between various subcontracted service providers.
- Supplier engineering shall ensure that preservation requirements for scope of work systems, system components, equipment, materials, and other procured goods are clearly and unambiguously documented and that preservation requirements are efficiently and effectively communicated to project procurement, logistics, construction management, quality, security, and other project functional areas, as required, for efficient and effective implementation of preservation requirements. This shall take the form of a preservation programme applicable to all systems, system components, equipment, materials, customer-supplied materials, and other goods procured or managed under the scope of work.
- The supplier's preservation management programme shall encompass identification, planning, acquisition of materials and services, and performance monitoring of all preservation management systems, processes, procedures, methods, work practices, etc.
- The supplier's preservation management programme shall clearly and unambiguously address temporary, long-term, and in-transit preservation requirements, including, but not limited to:
  - requirements for protection against, or insulation from, atmospheric conditions, sunlight, temperature, soil, dust, humidity, salt spray, corrosive atmospheres, or other physical

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environment conditions;

 detailed procedures for application, use, monitoring, and maintenance of coatings, coverings, fasteners, lines, and other components for internal and external weather proofing;

- requirements for electrical grounding or isolation;
- requirements for internal or external environment creation, for example, inert gas charging, heating, cooling, etc., inclusive of gas storage, electric power supply, etc.;
- detailed procedures for initial set-up, charging, activation, and maintenance of internal atmosphere generation, regeneration, monitoring, and relieving systems, for example, inert gas management systems;
- requirements for protection against, or insulation from, vibration or long-period cyclical motion in transit, for example, wave-generated movement during sea transport;
- internal and external structural integrity protection, for example, internal and external bracing, padding, framing, chocking, etc.;
- support structure requirements, for example, stools, pads, or other devices, substrates, or support required to ensure in-storage and in-transit stability of systems, system components, equipment, and material, or other discrete units or items;
- provision for physical separation and/or barriers to prevent airborne or direct transmittal of contaminants between work areas or between work areas and storage areas, for example, prevention of carbon steel grinding or cutting debris impact on stainless steel elements, airborne drift of blast aggregate into vessels or machinery, etc.;
- provision for, and final disposition of, temporary and longer-term storage or transit required supports and related binding devices, for example, stools, stands, sea fasteners, platforms, chocks, spacers, cabling, etc.;
- provision of requirements for temporary work platforms or other support structures required to ensure provision of preservation services, for example, provision of a self-elevating work platform for periodic access to elevated fittings, gauges, manways, etc.;
- requirements for protection against, or insulation from, contact with other objects, for example, padding or other protection for external tubing, fittings, or other impact-sensitive structures or components;
- clear physical delineation of temporary and longer-term storage areas supplemented by hard and soft barriers, as required, to maintain a protective perimeter;
- documented agreements with storage facility and transportation provider management regarding security management, including, but not limited to, facility access and egress control and control of access to project goods and materials within facility boundaries or aboard vehicles or vessels; and
- detailed procedures for inspection and testing to verify performance of preservation procedures and to provide for timely notice and corrective action to maintain preservation status.
- The supplier's preservation management programme scope shall encompass management of
  preservation requirements, from initial transfer of ownership or management responsibility to
  project scope of responsibility, through any period of temporary or longer-term storage and
  through any period of transit, including transit for final delivery at point of active use or

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installation.

The supplier's preservation management programme shall clearly and unambiguously address processes and procedures to ensure that storage and control of materials are accomplished in accordance with manufacturer recommendations, specifications, and project-specific requirements.

- The supplier's preservation management programme shall incorporate special precautions to address preservation and control of valves, electrical motors and components, mechanical and rotating equipment, piping and fittings, instrumentation, flange faces, gaskets, coatings, insulation, and other materials. Special precautions include, but are not limited to, supplierspecified maintenance procedures related to engines, electric motors, pumps, compressors, etc., such as periodic shaft rotation, engine turnover, lubrication, etc.
- The supplier shall ensure that clear and unambiguous requirements for preservation of the system, system components, equipment, materials, and other procured goods are clearly and unambiguously documented in purchase orders, work authorisations, and other communications between the supplier and sub-suppliers.
- Where sub-supplier expertise is utilised in determination of the preservation protocol, supplier procurement processes shall ensure clear and unambiguous documentation of sub-supplier input into preservation management programme requirements.
- Supplier procurement shall ensure that preservation requirements for scope of work systems, system components, equipment, materials, and other procured goods are clearly and unambiguously documented and that preservation requirements are efficiently and effectively communicated to project logistics, construction management, quality, security, and other project functional areas, as required, for efficient and effective implementation of preservation requirements.
- The supplier shall ensure comprehensive, clear, and unambiguous designation of sub-supplier responsibility for execution of all preservation management programme elements, including, but not limited to, all systems, processes, procedures, methods, ready access to records, and provision of equipment, tools, or services essential to efficient and effective execution of the preservation management programme.
- The supplier shall ensure that preservation management programme responsibilities are clearly and unambiguously defined within the project team and efficiently and effectively implemented at all project scope of work locations. Inclusion of supplier and sub-supplier scope of work in the development and implementation of a preservation management programme shall be considered essential to efficient and effective preservation management programme execution.
- The supplier shall ensure clear and unambiguous designation of project team responsibility for oversight and management of preservation management programme elements during every stage of project development.
- The supplier's preservation management programme shall obtain DRC 1 status prior to placing the first PO.
- The supplier shall ensure that Eskom has free and unrestricted access to all preservation records for inspection and audit.

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# 6.4 QUALITY AUDITS

Quality audits and related quality performance reviews are intended to provide an objective evaluation of compliance with performance expectations defined in this specification, in the supplier contract quality plan (CQP), and in any other project scope of work specification.

- Quality audits and related quality performance reviews include, but are not limited to, any quality or other project functional area audits, assessments, verification of compliance reviews, surveillance, inspections, or other interim or final assessments of scope of work deliverables provided by the supplier or sub-suppliers.
- Quality audits and related quality performance reviews shall be carried out by trained, accredited, and experienced personnel in accordance with procedures documented in the CQP.
- The supplier shall submit, for Eskom review, documented processes for conducting project scope of work quality audits and related quality performance reviews. Supplier quality audits and related quality performance review processes shall be designed to address evaluation of progress towards completion of project functional area deliverables as well as final deliverable quality.
- The supplier shall provide a schedule of anticipated quality audits covering all functional areas and related quality performance reviews at the time of first post-contract award CQP submission.
- The supplier shall maintain an accurate quality audit and related quality performance review schedule and shall incorporate the current schedule as an attachment to the supplier CQP.
- The supplier's quality audit and related quality performance review schedule development process shall be designed to incorporate consideration of information generated by previously conducted audits and reviews, by input from project risk management evaluations (risk register), or from Eskom or sub-supplier subject matter expertise.
- Eskom reserves the right to oversee supplier audit programmes by participating in selected audits as an observer and by assessing the supplier during key work stages. Eskom will coordinate with the supplier to develop an oversight schedule aligned with the supplier's audit schedule.
- Eskom will have the right to obtain access to any audit reports of audits performed by the supplier reflected in the audit programme.
- Eskom reserves the right to conduct independent quality audits, scheduled and unscheduled, during all phases of the contract. The supplier shall provide all resources to support these activities.
- Eskom shall be given access at all reasonable times before, during, and after manufacture and before delivery, construction, erection, and commissioning to measure, test, and inspect the products and workmanship, as necessary, at the supplier's premises and at Eskom sites.
- The supplier shall obtain access for Eskom to measure, test, witness tests, and inspect products that are being manufactured by any sub-supplier. This includes surveillances.
- Assessments and audits shall be carried out on all new suppliers and their sub-suppliers.
- Eskom shall have the right to participate in, or request that, a technical investigation be launched and conducted at the supplier's and sub-suppliers' premises or other sites when risk

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to Eskom products or service deliverables is identified.

Qualification requirements for supplier and sub-supplier personnel engaged in conducting quality audits and related quality performance reviews shall be defined in the supplier CQP and shall be in compliance with the Project Quality Personnel Qualification Specification.

#### 6.5 NON-CONFORMANCE

- Non-conformance reports raised by Eskom and issued against the supplier shall be investigated by the supplier as a matter of urgency in order to determine the root cause, corrective action, and preventive measures, as required, with implementation time frames.
- A formal response shall be prepared in respect of the defined criteria and submitted to Eskom for its review, evaluation, and acceptance, within a maximum of 14 calendar days from the date of issue of the non-conformance, and should be aligned with the site requirements/procedure.
- Eskom may, at its discretion, request a response sooner and, in any case, before the supplier proceeding with any pending/further intervention or corrective action, as may be required by Eskom.
- Should Eskom or its inspection authority/agency identify any non-conforming products during the conduct of its audits/surveillances/inspections, the supplier shall be deemed to be in breach of contract and shall be held liable for any repair, rework, and/or associated replacement costs. The supplier may, in such instances, also be held liable for the full costs associated with the conducting of follow-up audits/surveillances/inspections.
- The nature, magnitude, and/or frequency of non-conformance and inspection defect/rejection reports raised by Eskom or its appointed inspection authority/agency shall form the basis of any action to rescind/withdraw the supplier's qualification status.

#### 7. ACCEPTANCE

This document has been seen and accepted by:

| Name              | Designation  |  |  |
|-------------------|--|--|--|
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| Geoffrey Small    | SHEQ Manager: Power Delivery Projects                    |  |  |
| Pat Mnguni        | Manager: Quality Control                                 |  |  |
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# REVISIONS

| Date          | Rev. | Compiler | Remarks   |
|---------------|------|----------|---|
| March 2016    | 1    | SA Sambo | Specification was due for revision and also to repackage the requirements and tender returnable documents into four categories. |
| December 2011 | 0    | A Hunter | New document  |

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