

General Quality Requirements

Purpose

This Specification outlines the minimum requirements to ensure that products and services supplied to TPL are manufactured, provided, constructed or installed in accordance with all specified requirements as defined in the Contract, all associated specifications, drawings, codes and standards.

General

The Contractor is responsible for all quality activities necessary to ensure the Work meets the requirements specified in the Contract and shall manage and coordinate all Quality aspects of the Work in accordance with the requirements of this Specification, together with the Contractor's PQP and QCPs once reviewed and accepted by TPL.

Project Quality Plan

- Overview and understanding of scope.
- Key requirements, Applicable SANS Standards, and regulations.
- Quality Policy.
- Organogram with positions, responsibilities, qualifications.
- Proof of registrations with regulatory bodies.
- Procedures;
 - Document control – the contractor to provide a description of how documents provided by TPL will be managed e.g., management tools and databases, internal and external distribution of documents to TPL or third parties. Internal review and approval routes and authorities.
 - Design control – where the contractor is responsible for any aspects of design related to the scope of work, they must provide procedures for the control of these design activities.
- Detailed methodology (Method statement, Drawings)
- Project Schedule - Kickoff Meeting, Timelines, meetings, inspections, and testing.
- Commissioning and training plan.

Quality Control Plans (Installation, Commissioning and Decommissioning)

The QCP shall be submitted before the commencement of the project.

QCPs must clearly **identify all inspection, test and verification requirements** to meet the Contractual obligations, specifications, drawings and related details including destructive and non-destructive testing, witness and hold points. The Contractor prepares and submits QCPs to TRANSNET for review in accordance with the requirements of the Contract and PQP. The QCP shall include;

QCPs shall include reference to all tests specified in the Scope of work.

Inspection and Testing

The Contractor is responsible for the conduct of all Contractor inspections and tests. This responsibility includes:

- The Manufacture Acceptance Test
- Documenting inspections and test results in the QCP and relevant FICs.

- Progressively inspecting the quality of the Scope of Work performed, including that of all Sub-Contractors.
- Inspecting day to day activities, material receipts, issue of material for installation, in-process inspections, and final inspections.

Schedule of Inspection - The Contractor shall submit a Schedule showing the proposed dates for inspections and tests nominated in the QCP where witness and hold points are required. The Schedule shall be regularly updated with progress and issued to TRANSNET to show the current inspection and test status.

Field Inspection Checklists - For site installation activities, the Contractor prepares Field Inspection Checklists (FICs) to permit inspection and testing of installed equipment in accordance with the respective QCPs.

Inspection Points - The QCP identifies points in the fabrication, manufacturing and/or installation process that are selected for inspection. Hold Point (H), Witness Point (W) Review Point (R), Surveillance (S).

Welding Procedures - Where the Contractor's Scope of Work includes fabricated weldments, Welding Procedure Specifications (WPS) defining the method, preparation and sequences to be adopted to achieve a satisfactory welded joint shall be provided for all weld types required in the execution of the Contractor's Scope of Work.

Material Traceability - Where, and to the extent that material traceability is required, the Contractor shall provide its procedures for the maintenance of material identification throughout all phases of manufacture.

Material Certification - Where specified in the Contract the following certificates shall be provided to TPL. A certificate of compliance, A certificate issued by a laboratory or test facility independent of the Contractor's work, any other form of certification affecting the scope of work.

Non-Conforming Products

The Contractor shall establish and maintain procedures to control material or products that do not meet the specified requirements.

All Contractor product and/or materials identified as not conforming to requirements shall be dealt with promptly as follows:

- If the Contractor discovers material or product which is not in accordance with the requirements of the Contract, i.e. a non-conformance, the Contractor shall immediately initiate the non-conformance procedure. If TRANSNET or its agent identifies a non-conformance, a TRANSNET NCR may be raised.

Corrective and Preventative Action

- If the Contractor proposes a disposition of any non-conforming materials or product which varies from the requirements of the Specification or Contract, such a proposal shall be submitted in writing to TRANSNET whose decision on the proposal shall be obtained in writing before the non-conforming material or product is covered up or incorporated into the Works, or is the subject of any other disposition.

- The disposition of non-conformances which do not vary the requirements of the Contract, specification or drawings may be approved by the Contractor following discussion and agreement with TRANSNET.

Inspection, Measuring and Test Equipment

Calibration - The Contractor, shall ensure the calibration of test and measuring equipment is performed and maintained in accordance with the relevant Contractor procedures and/or the equipment manufacturer's specifications.

Use of Inspection, Measuring and Test Equipment - The Contractor shall ensure that authorized equipment users:

- Use the equipment in accordance with manufacturer's instructions, and accepted industry practices
- Ensure the equipment is covered by a current calibration certificate
- Conduct the measurements or tests in accordance with the equipment manufacturer's specifications or other relevant specification
- Prior to commencement of each inspection or test activities:
 Identify the measurements to be made
 Determine the accuracy required
 Select the appropriate inspection, measuring or test equipment for the scope of work.

Quality Records

Contractors shall maintain Quality Records necessary to provide objective evidence that demonstrates and verifies achievement of the QA / QC requirements associated with the Scope of Work. All Quality Records, including original source material test certificates and non-destructive test reports, shall be retained by the Contractor during the project, and be provided to TRANSNET at the times, and in the quantities specified in the Contract.

Documentation

The Contractor shall as a minimum the documentation listed below:-

- Detailed drawings (as highlighted in the scope)
- comprehensive maintenance manuals.
- detailed spares catalogues.
- Certificate of Compliance (Original and a copy of the COC) if applicable.
- Factory inspection and testing documents.
- Site testing, certification, commissioning and completion documents.
- Equipment warranty certificates.
- Trailer registration documents.
- PQP & QCP.

- A formal completion certificate signed and dated by both the Contractor and the Project Manager shall be provided.