

2	SUBMITTALS	2
2.1	GENERAL.....	2
2.1.1	Project Quality Plan	2
2.1.2	Mandatory Procedures	4
2.1.3	Quality Organisation Plan	4
2.1.4	Inspection and Test Plans.....	4
2.1.5	Quality Checklists	5
2.1.6	Quality Objectives and Key Performance Indicators	5
2.1.7	Method Statements.....	6

2 SUBMITTALS

2.1 GENERAL

2.1.1 Project Quality Plan

- 1 The Contractor shall prepare and submit the necessary Contract specific Project Quality Plan as specified in this Section to the Engineer for review and approval within thirty (30) days of the award of Contract. The Contractor shall not be permitted to Work on the worksite until such time as the plan has received the Engineers approval.
- 2 The Contractor shall regularly review the ongoing suitability of the Project Quality Plan. The Contractor shall undertake a full formal review of the Project Quality Plan on a quarterly basis with reference to the date of award of the Contract and submit the findings of the review to the Engineer within fourteen (14) days of the review date along with an amended Project Quality Plan should any changes have been made.

The Project Quality Plan shall describe the Contractor's intent with regards to effectively managing and monitoring the quality of the works throughout the construction, handover and maintenance stages of the project. The contents must include but not be limited to the following:

- (a) Front Cover
- (b) Table of Contents
- (c) Project Scope, Requirements and Quality Objectives & Risk
- (d) Quality Policy and ISO 9001 Certificate (if applicable)
- (e) Control of Project Quality Plan
- (f) Reference Documentation
- (g) Project Management, Planning and Resources
- (h) Management, Organisation and Responsibilities
- (i) Contract Review
- (j) Project Deliverables
- (k) Communication with the Engineer
- (l) Management of Documents, Data and Records
- (m) Design (Including Temporary Works)
- (n) Procurement of Services, Equipment and Materials
- (o) Method Statements
- (p) Inspection and Test
- (q) Product Identification and Traceability
- (r) Owner Supplied Product
- (s) Handling, Storage, Packaging and Delivery
- (t) Non-conformance, Corrective and Preventative Action
- (u) Control of Inspection, Measuring and Test Equipment

- (v) Audits
- (w) Training
- (x) Quality Objectives, Key Performance Indicators and Continual Improvement
- (y) Risk Identification and Analysis
- (z) Management Review
- (aa) Quality Meetings
- (bb) Monthly Quality Report
- (cc) Commissioning
- (dd) Interface Management
- (ee) Project Completion and Handover
- (ff) Appendices

3 The Project Quality Plan shall include as a minimum:

- (a) a detailed description of procedures, instructions, and reports to be used to ensure compliance with the Contractual requirements.
- (b) a detailed description of procedures for reviewing shop drawings, samples, certificates and other submittals necessary for compliance with the Project Documentation
- (c) a detailed description of procedures used to identify, report and resolve problems
- (d) a description of the services provided by outside organisations such as testing laboratories, architects, and consulting engineers
- (e) a detailed description of inspections and tests required for the quality control activities
- (f) List of forms and reports to be used to document quality assurance operations
- (g) the roles and responsibilities of personnel deployed on the project
- (h) a submittal schedule listing required submission dates and what action is required by the Contractor and Engineer
- (i) a detailed description of document and submittal control procedures
- (j) an inspection and test schedule keyed to the construction programme
- (k) procedures to identify and control the use of items and materials

4 No construction shall begin and no requests for payment from the Contractor shall be processed until the Contractor's Project Quality Plan is approved.

5 A Contractors Project Quality Plan Template with guidance notes is included in Part 16 Appendix B of this Section. The format of the Contractors Project Quality Plan must follow this template including all clauses contained within.

2.1.2 Mandatory Procedures

- 1 The Contractor shall prepare and submit the following mandatory procedures to the Engineer for approval no later than forty five (45) days from the start of the contract. These include as a minimum:
 - (a) Control of documents
 - (b) Control of records
 - (c) Internal and external audits
 - (d) Control of nonconforming product
 - (e) Corrective and preventative action
 - (f) Calibration
 - (g) Identification and Traceability
 - (h) Inspection and test of the works
- 2 Notwithstanding the above list of mandatory procedures the Contractors shall prepare any additional procedures necessary for the execution of the works and submit for approval of the Engineer no later than forty five (45) days from the start of the Contract.

2.1.3 Quality Organisation Plan

- 1 The Contractor shall submit a Quality Organisation Plan to the Engineer for approval no later than thirty (30) days from the start of the Contract.
- 2 The Quality Organisation Plan shall show the structure of the Contractor's quality management activities and shall include, but not be limited to, the following:
 - (a) an organisation chart identifying all personnel responsible for quality
 - (b) Indicate and describe the area of responsibility and authority of each individual in the quality management team.
- 3 The Contractor's Quality staff shall have relevant educational and professional qualifications, and training as defined in Part 3 of this Section. The Contractor is not permitted to execute any form of the works at the worksite until such time as approved quality personnel have been deployed on a fulltime basis to the worksite. The Contractor shall not remove or replace the appointed quality personnel without prior approval from the Engineer.
- 4 The Quality Organisation Plan may form part of the Project Quality Plan or be prepared as a standalone document and cross-referenced within the Project Quality Plan.

2.1.4 Inspection and Test Plans

- 1 The Contractor shall submit a list of Inspection and Test Plans (ITP) to be generated for the quality control activities to be deployed for each work element that forms part of the project. It will be presented as a Schedule showing what is to be prepared and the target dates for the individual ITPs to be submitted. The Schedule should be issued to the Engineer for approval no later than thirty (30) days from the start of the Contract.

- 2 The Inspection and Test Plan (ITP) shall consider the requirements of each Section of the Specification and shall identify, as a minimum, the following:
 - (a) Details each activity, inspection and test to be performed
 - (b) Reference to specifications, standards etc.
 - (c) the required inspection and testing frequency
 - (d) the acceptance/rejection criteria
 - (e) whom from the Contractors team is responsible and qualified to perform the inspection or test
 - (f) Quality Records to be generated
 - (g) Hold, Witness, surveillance and Record Review points of the Contractors team, the Engineer and any other agencies having jurisdictional authority over the work relating to each inspection and test to be performed.
- 3 Each inspection and test shall be assigned a unique reference number.
- 4 Each Inspection and Test Plans is required to address the Contractors on and off site Work and preparation, submission and approval of related documentation.
- 5 An Inspection and Test Plan shall be required for all operations including major temporary works and Commissioning.
- 6 No work covered by the Inspection and Test Plan shall begin until the ITP has been reviewed and approved by the Engineer.
- 7 A Contractors Inspection and Test Plan Template with guidance notes is included in Appendix B of this Section and must be used by the Contractor

2.1.5 Quality Checklists

- 1 The Contractor shall produce and utilise a specific quality checklist for all activities that are subject to checking as defined in the Inspection and Test Plan. The Quality Checklist must be submitted to the Engineer for review and approval with the Inspection Test Plan submission prior to the start of the activity.
- 2 The Contractor shall inspect the work and sign off the relevant quality checklist and Inspection Request prior to the final inspection request submitted to the Engineer.
- 3 The quality checklist shall be attached to an Inspection Request along with any other relevant attachments and submitted to the Engineer.

2.1.6 Quality Objectives and Key Performance Indicators

- 1 The Contractor shall develop and report quality objectives and Key Performance Indicators (KPI's). KPI's are a set of quantifiable measures that the Contractor uses to gauge its performance in accordance with the Contract over time..
- 2 The quality objectives and KPI's shall be defined in the Contractors Project Quality Plan and be subject to Engineers approval.

- 3 The Contractor is responsible for developing his own KPI's for all elements of his contract (Contractual, Commercial, Safety etc.) but as a minimum shall address the following KPI's.
- (a) Time between identification of a Nonconformity or Corrective Action and actual raising on the system.
 - (b) Time between opening and closure of Nonconformity Reports (NCR) and Corrective Action Requests (CAR).
 - (c) NCR and CAR statistics per areas, sections, discipline, subcontractor etc.
 - (d) Percentage of reoccurring NCR's and CAR's – Trends on NCR's and CAR's.
 - (e) Approval status of critical documentation for the progress of the works (Method Statements, ITPs etc.).
 - (f) Statistical data from inspections as per the Inspection & Test Plans (Pass vs failed, pass first time, etc.).
 - (g) Completion packages (As-Built folders) progress.
- 4 Reporting of the KPI's shall include a graphical bar chart representation on a month by month basis from the start of the Contract.

2.1.7 Method Statements

- 1 Contractor shall ensure that Method Statements address quality issues. Refer to Section 11 for Method Statement requirements.

END OF PART