
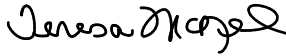
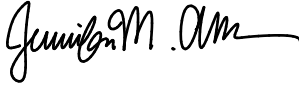


## Contractor Quality Requirements – Appendix A-11 (US)

### Approvals

|   |   |
|---|---|
| <b>Document Originator</b><br>David McClung | <br>11/06/2023 |
| <b>Document Reviewer</b><br>Teresa McNeil   | <br>11/08/2023 |
| <b>Document Manager</b><br>Jennifer Abram   | <br>11/09/2023 |

**BRIEF DESCRIPTION OF CHANGES****REVISION HISTORY**

| Revision History |                       |                 |  |                    |                           |             |
|------------------|-----------------------|-----------------|--|--------------------|---------------------------|-------------|
| Rev. No.         | Date<br>(YYYY-MMM-DD) | Document Status | Brief Description of Change History  | Originator<br>(By) | Reviewer(s)<br>(Checkers) | Approver(s) |
|                  | 11/2/2023             | Issued for Use  | -Added "Appendix A-11" to title<br>-Changed attached "Appendix" to "Annex"<br>-Added API Q2 and API 1177 as examples of industry standard QMSs.<br>-Attached Annex B | DM                 | fu                        | JA          |

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## Quality Management System

### 1.1 General Requirements

The Contractor, major subcontractors, and suppliers shall establish, document, implement, and maintain a quality management system (QMS) and continually improve its effectiveness.

The QMS must align with the requirements of an Industry Standard Quality Management System (i.e., ISO 9001, API Q2, API 1177, etc.).

The Contractor must demonstrate competency by providing copies of the following documentation:

- Contractor's quality manual, complete with corporate quality policy, objectives, and key performance indicators.
- design development, design review, design verification, design changes, and design authentication procedures
- Communication practices, internal and project organization.
- Subcontractor prequalification, requalification, and monitoring procedures (safety requirements are excluded)
- control of nonconformance procedure
- corrective and preventive action procedures
- audits and assessments procedures
- management of change procedure
- control procedures as required to manage and control the work
- internal audit schedule, including copies of the two most recent internal audit reports, complete with action logs and implementation dates

The Contractor is solely responsible and accountable for the quality of their work and the work of their subcontractors and suppliers.

The Contractor shall control any external QMS process that affects conformity to requirements. The QMS must define the type and extent of control to be applied to these outsourced processes. Ensuring control over outsourced processes does not absolve a Contractor of the responsibility to conform to all requirements.

"Documented" as used in this document means that the associated item is established, recorded, implemented, and maintained. "Shall include" means "shall include but is not limited to."

At its discretion, the Company can monitor the application and implementation of the Contractor, subcontractor, and supplier.

## **1.2 Nonconformances and Corrective Actions**

The Contractor shall obtain the Company's written approval for nonconformance dispositions (i.e., dispositions for "repair" or "use as is").

For tracking purposes, the Contractor shall maintain NCR and CAR registers or logs, to be available upon request and as part of the final documentation handover.

All NCRs that are deemed major / critical in severity or have the proposed disposition of repair or use as is shall be entered into the Company Quality Notification tool.

Documented procedures shall address quarantining and recall of nonconforming product, a root cause failure analysis (RCFA) procedure and an effective corrective action procedure to prevent the repetition of serious nonconformances and repeated minor nonconformances. These may be included in the PQP.

## **1.3 Performance Measurement and Reporting**

The Contractor shall regularly submit status reports on its project-specific quality plan per the reporting requirements stated in the contract.

In addition, the Contractor shall participate in performance measurement requirements as defined by the Company and submit monthly results (metrics) on Contractor, supplier, and subcontractor activities.

## **1.4 Quality Meetings**

The Contractor will lead regularly scheduled quality meetings to review quality status and quality key performance indicators (KPIs), while the contractor is responsible for minutes of meetings and follow up actions. For smaller projects this may be included in the project weekly update meeting.

Quality content will be discussed during the weekly project update meeting. This content will include active quality issues (NCRs, OFIs, RCFAs, Audits etc.) as well as any lessons learned.

Depending on the size and scope of the project, a stand-alone quality meeting may be requested by the Company, of which, schedule and agenda will be agreed upon.

## 1.5 Continual Improvement

The Contractor shall continually improve and provide evidence of the effectiveness of its QMS and supporting processes through audit results, corrective and preventive actions, analysis of data, and lessons learned.

## 1.6 Audits

### 1.6.1 Audit, Surveillance and Examination by Contractor

The Contractor is responsible for establishing an audit program and performing audits on projects and its suppliers and subcontractors. The Company will utilize its own process to perform audits on the Contractor. When possible, the contractor and Company can choose to perform joint audits to reduce the impact on the project / supplier / subcontractor.

The Company reserves the right to participate as an active observer in the planning and execution of such activities and must be given minimum 10 business days notice prior to the commencement of any audit or examination activity.

The Contractor shall submit a Project Audit Schedule to the Company for review with their PQP.

The Contractor's audit procedure shall also identify and control all follow-up actions from audits and examinations until close out. Close out of actions from audits and examinations shall be reported to the Company each month.

The Contractor must submit audit reports to the Company within 10 business days of the audit date.

### 1.6.2 Audit, Surveillance and Examination by Company

The Company reserves the right to perform audit and examination activities on Contractors and subcontractors throughout the duration of the work. The Company shall provide a minimum 10 business days notice prior to any audit or examination activity. The Contractor shall provide access to all requested information during the audit process. All findings will be managed through the Company's nonconformance / opportunity for improvement tools.

## 1 Contractor Quality Submittals

| Document Description | When to Submit for Review |
|----------------------|---------------------------|
| QMS                  | With the proposal         |



| Document Description  | When to Submit for Review  |
|---|--|
| Quality Manual  | With the proposal  |
| Design development, design review, design verification, design changes, and design authentication procedures                                | With the proposal  |
| Subcontractor prequalification, requalification, and monitoring procedure   | With the proposal  |
| Control of Nonconformance procedure   | With the proposal  |
| Corrective and preventative action procedures   | With the proposal  |
| Audit and assessment procedures   | With the proposal  |
| Management of change procedure  | With the proposal  |
| Control procedures as required to manage and control the work   | With the proposal  |
| Internal audit schedule, including copies of the two most recent internal audit reports, complete with action logs and implementation dates | With the proposal  |
| Sample Project Quality Plan   | With the Proposal  |
| PQP   | Initial: within 2 weeks after award.<br>Final: (minimum status of code B) prior to mobilization. |

| Document Description  | When to Submit for Review  |
|---|--|
| Supplier and subcontractor project quality plans                          | Initial: within 2 weeks after award.<br>Final: (minimum status of code B) prior to mobilization. |
| Quality status reports  | Per reporting requirement stated in the contract   |
| Project audit schedule  | With the Project Quality Plan.   |
| ITPs  | Two weeks before activity commences. (minimum status code B)                                     |
| Measuring and test equipment maintenance and calibration process          | With PQP   |
| Material and equipment receiving, handling, storage, and maintenance plan | With PQP   |
|   |  |

## 2 Fabrication and Construction Quality

### 3.1 General Requirements

The Contractor shall be familiar with all applicable quality requirements and ensure that all necessary or required training, testing, and/or certification has been successfully completed as required before work begins.

### 3.2 Project Quality Plan (PQP)

If the Contractor has executed work for the Company in the past, they shall include in the bid package, a previous PQP.

The Contractor shall prepare and submit a PQP to the Company for review.

The Contractor shall submit the initial PQP, and any process or procedures referenced within the PQP to the Company two (2) weeks after award. The final PQP must be reviewed and a minimum status of Code B prior to mobilization.

The PQP shall be based on the Contractor's existing Quality Management System, with the addition of any unique project specific requirements, and shall follow the format defined in the PQP Requirements Template, located in Annex A of this document.

The Contractor may utilize the PQP template provided in Annex A of this document.

### 3.2.1 Supplier and Subcontractor Project Quality Plans

The Contractor shall submit supporting PQPs to the Company, covering the scope of supply for design subcontractors, suppliers, fabrication, construction, installation, and commissioning subcontractors. All supporting PQPs shall bear evidence of the Contractor's review and approval (in accordance with the PQP requirements) prior to submission.

The Contractor may also choose to have their Supplier / Subcontractor utilize their reviewed PQP. If this option is utilized, applicable training and oversight is required to ensure the Supplier / Subcontractor is in conformance with the plan's requirements.

### 3.3 Contractor's Construction Quality Organization

The Contractor shall organize and provide adequate resources and assign qualified and trained personnel to manage and effectively perform its quality verification and audit activities. Personnel performing verification or audit activities shall be independent from the work being performed. A quality organization chart shall be included with the PQP to show lines of quality personnel reporting.

The contract shall ensure that an adequate number of inspectors as assigned to cover the scope of work and in accordance with the project schedule.

### 3.4 Contractor's Construction Quality Procedures

The Contractor shall ensure that all procedures referenced in the quality plan and ITPs are available for use and provided to the Company for review upon request.

The Company forms shall be used by the Contractor and its subcontractors and suppliers unless other forms are agreed upon for use by the Company. The forms to be used must be identified in the Contractor's project-specific documented procedures and the reviewed ITPs.

Following the Company's review of the project-specific quality plan, documented procedures, and ITPs, the Contractor shall distribute and implement the quality plan, documented procedures and ITPs ensuring awareness by all affected personnel.

Prior to the start of each activity, a review of the ITP shall be conducted to ensure that quality requirements are understood by those performing the work.

### 3 Inspection and Testing

#### 3.1 General Requirements

The Contractor or supplier shall ensure that inspection and testing activities related to the work are performed at pre-designated stages, in accordance with reviewed ITPs and referenced procedures and standards. All instruments used for inspection and testing activities shall be calibrated and certified. Records shall be maintained and available for the Company to review.

A minimum of 24 hours advance written notification of any anticipated hold and or witness points shall be provided.

Records of acceptable quality and compliance with project requirements (including inspection and testing related documentation) shall be compiled monthly and available for Company review.

#### 3.2 Inspection and Test Plans (ITPs)

##### 4.2.1 General

Contractor shall prepare and submit Inspection and Test Plans (ITPs) to Company for review. Contractor shall submit the initial ITPs to Company two (2) weeks prior to the activity starting. The final ITPs must be reviewed by the Company prior to the activity starting.

The Contractor shall create and utilize Inspection and Test Plans (ITPs) per the requirements in TC Energy Specification TES-CT-ITP-GL Inspection Test Plan Specification for Construction and Fabrication (CAN-US-MEX) (Item ID: 1017376226).

A list of activities that require Inspection and Test Plans can be found in the Inspection Test Plan Master Index (Item ID: 014266746) and in Quality Record Requirements Appendix A-11-1.

The Contractor's ITP format may be utilized with the Company's prior agreement, providing that it contains all information listed in the specification and all applicable inspection and test requirements. Standardized ITP Templates can be found in Appendix A-11-2.

Contractor shall ensure inspection and testing is performed in accordance with ITPs, including applicable work at subcontractor and supplier facilities. Contractor shall ensure all ITPs and associated documentation is maintained progressively throughout completion of the work and available for Company review at all times.

##### 4.2.2 Standardized Template Inspection and Test Plan

When Company standardized template Inspection and Test Plans are available for the construction activities, the Contractor may choose to adopt.

If adopted, the Contractor shall review the content to ensure the templates are sufficient for the scope of the project and include any internal Quality Management System requirements. All additions to the content will be highlighted in green, all proposed deletions will be highlighted in red. No content is to be removed from the template until it is agreed upon with the Project.

### **3.3 Control of Construction Quality Documentation and Records**

Quality records shall be clearly identified and traceable to the contract, subcontract, or PO/supplier, and to the specific component, module, and area of inspection. Where drawings or specifications are referenced, the status/revision shall be included. Deletions, modifications, or corrections shall be neatly lined out and initialed by the Contractor's authorized representative.

The Contractor's documented procedures shall describe the methods for the filing and storage of quality records to enable ready retrieval and prevent damage, deterioration and/or loss. In addition to the required hard copy, all quality records shall be submitted in searchable electronic format, as agreed with the Company. These procedures shall identify personnel responsible for reviewing and storing the records and identify the individuals authorized to endorse quality records before submission to the Company.

The Contractor shall maintain quality-related records until the Company requests submittal of such records.

### **3.4 Measuring and Test Equipment Maintenance and Calibration**

The Contractor shall have a Measuring and Test Equipment Maintenance and Calibration Process that will be submitted to the Company for review. All required Inspection and Test equipment will be calibrated prior to use and applicable supporting documentation applicable supporting documentation available for review.

### **3.5 Material and Equipment Receiving, Handling, Storage and Maintenance**

The Contractor shall develop a project specific Material and Equipment Receiving, Handling, Storage and Maintenance plan. This plan will include:

How the material will be:

- Received
- Handled
- Stored
- Maintained – including care and preservation

The Contractor will ensure that all material is traceable to the applicable supporting documentation and location of installation.

The Contractor is responsible for the receipt and control of its purchased materials, supplies, and equipment and material, supplies, and equipment issued to the Contractor by the Company and/or others.

## **4 Suppliers and Subcontractors Selection and Evaluation**

The Contractor shall include applicable quality related requirements of the contract, including all referenced drawings, specifications, codes, standards and this document in RFPs or subcontracts issued (at any tier). The Contractor shall ensure that subcontractors fully comply with said requirements, as applicable to the portion of the work performed by the subcontractor.

Only Company approved subcontractors shall be used on the project, and country of origin restrictions (if any) must be considered. Requests for proposals and subcontracts shall be restricted to subcontractors approved for use on the project by the Company. Any exception to this must have the Company's prior written approval.

## **5 Completion and Turnover**

Contractor shall establish a progressive turnover process based on Company system requirements and provide a full set of quality documents to the Company at the completion of the work. Quality documents shall include inspection and testing records, reports, marked-up drawings (such as weld maps and weld logs), and regulatory documents (when required). Unless otherwise stated in the contract, Contractor shall furnish the Company two hard copies and one electronic copy of all quality documents. Hard copies shall consist of the original document and one identical photocopy. Electronic documents shall include native files whenever possible. Scanned records must be in a searchable PDF format, unless otherwise agreed in writing by the Company.

Quality records shall normally be organized based on the following:

- general quality records (non-specific to an area or structure or process turnover system)
- area support system quality records (specific to an area or structure or non-specific to a process turnover system)
- process turnover system quality records (specific to a process turnover system)

Unless the scope of work requires otherwise, the Company will develop and issue descriptions of systems and the general or detailed boundaries and contents of these systems to the

Contractor. The Contractor shall organize turnover documentation according to these system descriptions.

Creation and compilation of system packages shall be performed by contractor with oversight by the Company, as required. Generally, records that are associated with same equipment or instrument tag number shall be filed together so that a complete set of the equipment quality records are in the same file location. The Contractor shall submit, within 30 calendar days (with its quality plan), details of its turnover tracking system to the Company for review, unless otherwise directed in writing by the Company.

Contractor is fully responsible for subcontractor's QA/QC documentation and turnover packages. All documents need to be reviewed and accepted by the Contractor before turning over to the Company.

## 6 Acronyms

| Definitions and Acronyms |  |
|--------------------------|--|
| Term / Acronym           | Definition / Description                       |
| CAR                      | Corrective Action Report                       |
| ISO                      | International Organization for Standardization |
| ITP                      | Inspection Test Plan                           |
| KPI                      | Key Performance Indicator                      |
| NCR                      | Nonconformance Report                          |
| OFI                      | Opportunity for Improvement                    |
| PQP                      | Project Quality Plan                           |
| QA                       | Quality Assurance                              |
| QC                       | Quality Control                                |
| QMS                      | Quality Management System                      |
| RCFA                     | Root Cause Failure Analysis                    |

| Definitions and Acronyms |                          |
|--------------------------|--------------------------|
| Term / Acronym           | Definition / Description |
| RFP                      | Request for Proposal     |

– END OF DOCUMENT –



## **ANNEX A:**

PROJECT QUALITY PLAN (PQP) REQUIREMENTS TEMPLATE

**Purpose:**

The purpose of this document is to communicate the Project Quality Plan (PQP) requirements to the Contractor and provide context for these requirements.

**General Notes:**

- If your company's QMS / Quality Manual has a procedure that covers a requirement stated in this template, just reference it. This will save you time and reduce the chance that there is incorrect and redundant information.
- This plan is to document the Project Specific Quality requirements – stay away from templated language as much as possible
- This is a plan – stay away from vague language - ensure the use of shall, will, must, etc., not should, could, would, etc. This is included in the review of the plan.
- Delete this page before submission.

|  |  |  |
|--|--|--|
| Project:<br><div>&lt;&lt;Project Name&gt;&gt;</div>            | Project Number:<br><div>&lt;&lt;Project Number&gt;&gt;</div> | <div>&lt;&lt;Insert Logo&gt;&gt;</div>             |
| Document Number:<br><div>&lt;&lt;Document Number&gt;&gt;</div> | Rev:<br><div>XX</div>  | Effective Date:<br><div>&lt;&lt;Date&gt;&gt;</div> |

Company Name

## PROJECT QUALITY PLAN

<<Project Name>>

### Project Ownership:

|  |                |
|--|----------------|
| Project Manager:<br><div>&lt;&lt;Name&gt;&gt;</div>                                |                |
|  | Signature/Date |
| Other:<br><div>&lt;&lt;Name&gt;&gt;</div>  |                |
|  | Signature/Date |
| Quality Manager:<br><div>&lt;&lt;Name&gt;&gt;</div>                                |                |
|  | Signature/Date |
| Project Quality Representative (if applicable):<br><div>&lt;&lt;Name&gt;&gt;</div> |                |
|  | Signature/Date |

|  |  |  |
|--|--|--|
| Project:<br><b>&lt;&lt;Project Name&gt;&gt;</b>            | Project Number:<br><b>&lt;&lt;Project Number&gt;&gt;</b> | <div>&lt;&lt;Insert Logo&gt;&gt;</div>         |
| Document Number:<br><b>&lt;&lt;Document Number&gt;&gt;</b> | Rev:<br><b>XX</b>  | Effective Date:<br><b>&lt;&lt;Date&gt;&gt;</b> |

**Revision History**

| No. | Description                 | Revised by  | Date     |
|-----|-----------------------------|-------------|----------|
| XX  | <<Description of Revision>> | <<Initial>> | <<Date>> |
|     |                             |             |          |

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| Document Number:<br><div style="border: 1px solid black; padding: 2px;"> &lt;&lt;Document Number&gt;&gt; </div> | Rev:<br><div style="border: 1px solid black; padding: 2px;"> XX </div>  | Effective Date:<br><div style="border: 1px solid black; padding: 2px;"> &lt;&lt;Date&gt;&gt; </div>                                 |

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## 1 SCOPE

<<Include what the scope of work that the Quality Plan covers and include what work will be performed by subcontractors (if any) and if they will fall under this Quality Plan or if they will have their own. >>

## 2 QUALITY GOALS, OBJECTIVES, AND MONITORING

### 2.1 Quality Goals and Objectives

<<List Contractor's quality goals & objectives for the project and explain how they will be achieved and measured. What does success look like?>>.

### 2.2 Monitoring and Trending of Metrics / KPIs

<<What metrics / KPIs does your company monitor and how? Is there a system to trend? Are there both leading and lagging indicators?>>

## 3 QUALITY RESOURCES

### 3.1 Quality Organizational Chart

<<A detailed organization chart(s) that includes individuals and roles, areas and lines of responsibility, communication, interrelationships, and areas of authority for all persons performing quality-related activities, including authority of the individuals assigned the responsibility for performing quality-related functions.>>

### 3.2 Key Quality Roles, Responsibilities, and Competencies

<<A list of all positions on the project that have Quality responsibilities and what those responsibilities / competencies are. This can be referenced back to your Quality Manual if located there.>>

### 3.3 On-boarding and Training Requirements

<<How will personnel be trained / onboarded and what frequency with the project's Quality Requirements? If an external training / onboarding plan is developed, ensure that it is referenced.>>

## 4 QUALITY DOCUMENT CONTROL AND RECORDS MANAGEMENT

### 4.1 Documentation and Records Requirements

<<Documentation and Records System requirements including:

- Transmittal control - how do you transmit documents to other parties?
- Records receiving - how do you control the receiving of records from other parties?
- Project nomenclature - what is your naming convention?>>

### 4.2 Confidentiality, Legibility, Access, and Retrievability

<<Is there confidentiality procedure in place and if not, how will confidential information be protected? Please reference document if procedure is in place.

Will all documents be legible and include all required signatures / dates?

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| Project:<br><div>&lt;&lt;Project Name&gt;&gt;</div>            | Project Number:<br><div>&lt;&lt;Project Number&gt;&gt;</div> | <div>&lt;&lt;Insert Logo&gt;&gt;</div>             |
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How will documents be accessible and retrievable?>>

#### 4.3 Data Protection, Security, Backup, and Recovery

<<How are documents / data protected & secured – is data backed up and recoverable? Please reference external procedure / policy if applicable.>>

## 5 COMMUNICATION WITH TC ENERGY

<< What are the methods of communication between the contractor and company – i.e. – Weekly Reports, Meetings, etc.? Include frequency – ensure you review contract requirements.>>

## 6 PURCHASING

### 6.1 Verification of Conformity

<<How does your company verify conformity of purchased items? What oversight occurs for vendor supplied items to ensure items meet the requirements? i.e. - are ITPs utilized, are there audits / shop inspections, etc.?>>

## 7 SUBCONTRACTOR MANAGEMENT

### 7.1 Subcontractor Selection

<< What are the quality requirements when selecting a subcontractor / service supplier? (All subcontractors must be qualified by TCE prior to being allowed on site).>>

### 7.2 Subcontractor Requirements

<<How are technical requirements communicated to the subcontractor / service supplier?>>

### 7.3 Subcontractor Oversight

<<How does your company verify conformity of subcontracted tasks? What oversight is in place to ensure subcontractors / service suppliers fulfill requirements? i.e. - are ITPs utilized, are there audits / shop inspections, etc.?>>

## 8 MATERIAL MANAGEMENT

### 8.1 Material Receiving

<<How is material (both company purchased and TC Energy Supplied), inspected and documented at the worksite? Please refer to Material Management Plan if applicable.>>

### 8.2 Requirements for Material Handling, Storage, Maintenance, and Preservation

<<How does your company handle and store material (both company purchased and TC Energy Supplied) including maintenance and preservation requirements? If in another document, please include reference. Can reference Material Management Plan.>>

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| Project:<br><div style="border: 1px solid black; padding: 2px;"> &lt;&lt;Project Name&gt;&gt; </div>            | Project Number:<br><div style="border: 1px solid black; padding: 2px;"> &lt;&lt;Project Number&gt;&gt; </div> | <div style="border: 1px solid black; padding: 2px; width: 150px; height: 20px; margin: 0 auto;"> &lt;&lt;Insert Logo&gt;&gt; </div> |
| Document Number:<br><div style="border: 1px solid black; padding: 2px;"> &lt;&lt;Document Number&gt;&gt; </div> | Rev:<br><div style="border: 1px solid black; padding: 2px;"> XX </div>  | Effective Date:<br><div style="border: 1px solid black; padding: 2px;"> &lt;&lt;Date&gt;&gt; </div>                                 |

### 8.3 Material Control

<<How is the distribution of material controlled to ensure the correct item / component is utilized in the correct location and is traceable?>>

### 8.4 Control of Damaged, Lost, or Nonconforming Materials

<<How does your company manage damaged, lost, or nonconforming material (both company purchased and TC Energy Supplied)? Is there a quarantine procedure? Is there a use an Over, Short and Damage form (OS&D)? If TC Energy Supplied Material, how does it communicate the issue with the company?>>

## 9 CONTROL OF NONCONFORMANCE, CORRECTIVE / PREVENTITIVE ACTION

### 9.1 Nonconformance Report (NCR) Procedure

<< Please include your nonconformance procedure (if included in an external procedure or manual, please reference). It shall include reporting of contractor issued nonconformances to TC Energy including those issued to subcontractors. All nonconformance's with proposed disposition of "repair" or "use as is" shall be approved by the Company.>>

### 9.2 Quarantining and Recall of Nonconforming Work

<<How does your company quarantine and recall nonconforming work? Do you have a Quarantine Procedure? If yes, please reference and explain when it is used, if no, please explain process.>>

### 9.3 Root Cause Analysis (RCA)

<<How does your company determine root cause? When is required? Do you have a Root Cause Analysis System / process (i.e., TapRoot, 5 Whys, etc.)? Please include.>>

### 9.4 Management of Change Process

<<All Management of Change on the project will be managed through the Company's process and can be triggered by RFI or Nonconformance.>>

### 9.5 Corrective Actions

<<How are corrective actions that arise from NCRs and other continual improvement issues managed? How does contractor ensure all tasks to close an NCR and other continual improvement issues are completed / verified? If a Variance is required, what is the process? Is there objective evidence?>>

### 9.6 Preventive Actions

<<How does your company issue and implement preventative actions (controls put in place to prevent a future occurrence or re-occurrence of quality issue)? If this is in a stand-alone procedure or in your manual, please reference. >>

## 10 INSPECTION & TESTING

### 10.1 Inspection & Test Plan Purpose and Content

<<The contractor will follow Specification TES-CT-ITP-GL Inspection Test Plan Specification for Construction and Fabrication (CAN-US-MEX) (1017376226) for ITP requirements.>>



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| Project:<br><div>&lt;&lt;Project Name&gt;&gt;</div>            | Project Number:<br><div>&lt;&lt;Project Number&gt;&gt;</div> | <div>&lt;&lt;Insert Logo&gt;&gt;</div>             |
| Document Number:<br><div>&lt;&lt;Document Number&gt;&gt;</div> | Rev:<br><div>XX</div>  | Effective Date:<br><div>&lt;&lt;Date&gt;&gt;</div> |

### 10.2 Inspection/Test Procedure(s)

<<Does contractor have Inspection & Test Procedures that instruct the field quality personnel how to inspect / test? Is there a list that can be referenced?>>

### 10.3 Equipment Calibration

<<How does contractor manage monitoring, measurement, and testing equipment calibration? Is it performed per manufacturer's requirements or a standard (or both)? Is there a log kept? If this is in a stand-alone procedure or in your manual, please reference.>>

## 11 AUDIT AND ASSESSMENT

### 11.1 Quality Audit Procedure and Schedule

<<How does contractor perform reviews and internal/external quality audits (including an audit schedule). Ensure you include when and how you will perform reviews on your subcontractors / suppliers as required.>>

### 11.2 Key Areas and Activities to be Audited

<<Can be included in Quality Audit Plan – explain what will be audited during each audit listed above- i.e. – 10% Audit – Review utilization of Quality Plan / Quality Procedures to ensure effectiveness of implementation.>>

### 11.3 Audit Checklists and Reporting

<<Will an Audit Checklist be developed for the audit / what content will it draw from, what will reporting include and who will it be reported to?>>

## 12 LESSONS LEARNED AND CONTINUOUS IMPROVEMENT

### 12.1 Process for Capturing, Communicating, and Incorporating Lessons Learned

<<How are lessons learned captured and utilized on the project?>>

## **ANNEX B:**

### PROJECT QUALITY PLAN (PQP) REQUIREMENTS

**Purpose:**

The purpose of this document is to communicate Project Quality Plan (PQP) requirements to the Contractor and provide context for these requirements.

| General Notes:   |   |
|--|---|
| <ul style="list-style-type: none"> <li>When writing the Project Quality Plan - ensure applicable references to company &amp; TC Energy documents are included.</li> <li>When possible, don't reiterate information that is in another document - example: if the information is in the PEP or Quality Manual / Procedure, reference it.</li> </ul> |   |
| Project Quality Plan Deliverable   | Content Details   |
| <b>Section 1 - Scope</b>   |   |
| Scope of Quality Plan  | Include what the scope of work that the Quality Plan covers and include what work will be performed by subcontractors (if any) and if they will fall under this Quality Plan or if they will have their own.  |
| <b>Section 2 - Quality Goals, Objectives, and Monitoring</b>   |   |
| Quality Goals & Objectives   | List Contractor's quality goals & objectives for the project and explain how they will be achieved and measured. What does success look like?   |
| Monitoring and Trending of Metrics / KPIs  | What metrics / KPIs does your company monitor and how? Is there a system to trend? Are there both leading and lagging indicators?   |
| <b>Section 3 - Quality Resources</b>   |   |
| Quality Organization Chart   | A detailed organization chart(s) that includes individuals and roles, areas and lines of responsibility, communication, interrelationships, and areas of authority for all persons performing quality-related activities, including authority of the individuals assigned the responsibility for performing quality-related functions.  |
| Key quality roles, responsibilities, and competencies  | A list of all positions on the project that have Quality responsibilities and what those responsibilities / competencies are. This can be referenced back to your Quality Manual if located there.  |
| On-boarding and Training requirements  | How will personnel be trained / onboarded and what frequency with the project's Quality Requirements? If an external training / onboarding plan is developed, ensure that it is referenced.   |
| <b>Section 4 - Quality Document Control and Records Management</b>   |   |
| Documentation and records requirements   | Documentation and Records System requirements including: <ul style="list-style-type: none"> <li>Transmittal control - how do you transmit documents to other parties?</li> <li>Records receiving - how do you control the receiving of records from other parties?</li> <li>Project nomenclature - what is your naming convention?</li> </ul>   |
| Confidentiality, legibility, access and retrievability   | <ul style="list-style-type: none"> <li>Is there confidentiality procedure in place and if not, how will confidential information be protected? Please reference document if procedure is in place.</li> <li>Will all documents be legible and include all required signatures / dates, will you have a signature log?</li> <li>How will documents be accessible and retrievable?</li> </ul> |
| Data Protection, security, backup, and recovery  | How are documents / data protected & secured – is data backed up and recoverable? Please reference external procedure / policy if applicable.   |
| <b>Section 5 - Communication with TC Energy</b>  |   |
| Communication methods  | What are the methods of communication between the contractor and company – i.e. – Weekly Reports, Meetings, etc? Include frequency – ensure you review contract requirements.   |

|  |   |
|--|---|
| <b>Section 6 - Purchasing</b>  |   |
| Verification of conformity   | How does your company verify conformity of purchased items? What oversight occurs for vendor supplied items to ensure items meet the requirements? i.e. - are ITPs utilized, are there audits / shop inspections, etc?  |
| <b>Section 7 - Subcontractor Management</b>                                    |   |
| Subcontractor selection  | What are the quality requirements when selecting a subcontractor / service supplier? (All subcontractors must be qualified by TCE prior to being allowed on site).  |
| Subcontractor requirements   | How are technical requirements communicated to the subcontractor / service supplier?  |
| Subcontractor oversight  | How does your company verify conformity of subcontracted tasks? What oversight is in place to ensure subcontractors / service suppliers fulfill requirements? i.e. - are ITPs utilized, are there audits / shop inspections, etc?   |
| <b>Section 8 - Material Management</b>   |   |
| Material receiving   | How is material (both contractor purchased and TC Energy Supplied), inspected and documented at the worksite? Please refer to Material Management Plan if applicable.   |
| Requirements for material handling and storage, maintenance, and preservation. | How does contractor handle and store material (both contractor purchased and TC Energy Supplied) including maintenance and preservation requirements? If in another document, please include reference. Can reference Material Management Plan.   |
| Material Control   | How is the distribution of material controlled to ensure the correct item / component is utilized in the correct location and is traceable?   |
| Control of damaged, lost, or nonconforming materials                           | How does Contractor manage damaged, lost, or nonconforming material (both contractor purchased and TC Energy Supplied)? Is there a quarantine procedure? Is there a use an Over, Short and Damage form (OS&D). If TC Energy Supplied Material, how does it communicate the issue with the company?  |
| <b>Section 9 - Control of Non-Conformance, Corrective/Preventive Action</b>    |   |
| Nonconformance Report (NCR) procedure  | Please include your nonconformance procedure (if included in an external procedure or manual, please reference). It shall include reporting of contractor issued nonconformances to TC Energy including those issued to subcontractors. All nonconformance's with proposed disposition of "repair" or "use as is" shall be approved by the Company. |
| Quarantining and recall of nonconforming Work                                  | How does contractor quarantine and recall nonconforming work? Do you have a Quarantine Procedure? If yes, please reference and explain when it is used, if no, please explain process.  |
| Root cause analysis  | How does contractor determine root cause? When is it required? Do you have a Root Cause Analysis System / process (i.e., TapRoot, 5 Whys, etc)? Please include.   |
| Management of Change Process   | All Management of Change on the project will be managed through the Company's process and can be triggered by RFI or Nonconformance.  |

|   |   |
|---|---|
| Corrective actions  | <ul style="list-style-type: none"> <li>How are corrective actions that arise from NCRs and other continual improvement issues managed?</li> <li>How does contractor ensure all tasks to close an NCR and other continual improvement issues are completed / verified? If a Variance is required, what is the process? Is there objective evidence?</li> </ul> |
| Preventive actions  | How does contractor issue and implement preventative actions (controls put in place to prevent a future re-occurrence of a quality issue)? If this is in a stand-alone procedure or in your manual, please reference.   |
| <b>Section 10 - Inspection &amp; Testing</b>                            |   |
| Inspection & Test Plan purpose and content                              | The contractor will follow Specification TES-CT-ITP-GL Inspection Test Plan Specification for Construction and Fabrication (CAN-US-MEX) (1017376226) for ITP requirements.  |
| Inspection/Test Procedure(s)  | Does contractor have Inspection & Test Procedures that instruct the field quality personnel how to inspect / test? Is there a list that can be referenced?  |
| Equipment Calibration   | How does contractor manage monitoring, measurement, and testing equipment calibration? Is it performed per manufacturer's requirements or a standard (or both)? Is there a log kept? If this is in a stand-alone procedure or in your manual, please reference.   |
| <b>Section 11 - Audit and Assessment</b>                                |   |
| Quality audit procedure and schedule                                    | How does contractor perform reviews and internal/external quality audits (including an audit schedule). Ensure you include when and how you will perform reviews on your subcontractors / suppliers as required.  |
| Key areas and activities to be audited                                  | Can be included in Quality Audit Plan – explain what will be audited during each audit listed above- i.e. – 10% Audit – Review utilization of Quality Plan / Quality Procedures to ensure effectiveness of implementation.  |
| Audit checklists and reporting  | Will an Audit Checklist be developed for the audit / what content will it draw from, what will reporting include and who will it be reported to?  |
| <b>Section 12 - Lessons Learned and Continuous Improvement</b>          |   |
| Process for capturing, communicating, and incorporating lessons learned | How are lessons learned captured and utilized on the project?   |