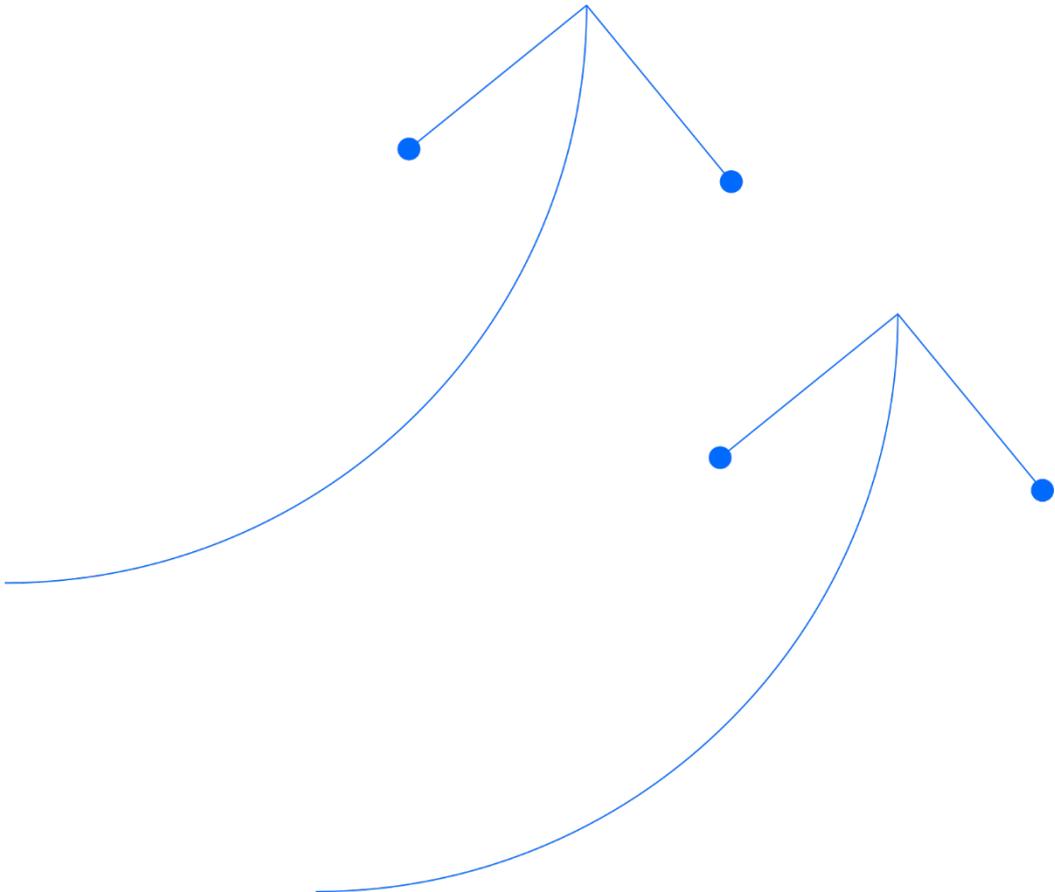


QUALITY ASSURANCE SPECIFICATION FOR SUPPLIERS

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DOCUMENT CONTROL

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REVISION HISTORY

REV	Date	Description	Originator	Checked	Approved
1	8/2/2023	Updated per project needs	JM	TW	GG
2	01/09/2026	Update to new template	MS	RK	RK

CHANGE LOG

REV	CHANGE
1	Replaced OSA logo with Santos’s logo. Replaced ‘Oil Search Alaska’ with ‘Santos Alaska’ in on title page instruction section. Replaced ‘OSA’ with ‘Santos’ and corrected grammar in ‘Preface’ section. Corrected grammar in Disclaimer section. Replace ‘Oil Search Alaska’ with ‘Santos Alaska’ in Section 2.1. Removed ‘Oil Search Alaska’ from Section 2.2’s abbreviation table. Replaced ‘Oil Search Alaska’ with ‘Santos’ in table 2-3. Replaced ‘OSA’ with ‘Santos’ in sections 3 & 4. Updated table to reflect company name replacements. * Combined with Purchase Order Quality Spec
2	Updated to new Santos template and logo.

PREFACE

The use by consultants, contractors, or suppliers of this specification does not relieve them of any responsibility whatsoever for the quality of design, materials, and workmanship that they have been engaged to provide.

If Santos consultants, contractors or suppliers have any doubt as to the relevant specification to use, then they must consult Santos. However, they will always remain responsible for the use of the most appropriate specification to meet specific facility criteria or contractual requirement.

Santos grants the right to use these specification to Santos's consultants, contractors and suppliers who are contractually authorized to do so and to any related party who are contractually required to comply with them.

Any requests to deviate from the requirements of this specification must be submitted in writing for resolution by Santos.

DISCLAIMER

Santos disclaims any liability of whatsoever nature for any damage (including injury or death) suffered by any company or person whomsoever as a result of or in connection with the use, application, or implementation of any specification, combination of specification or any part thereof contained in this document.

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The following abbreviations are used in this document:

Table 1 – Acronyms and Abbreviations

Abbreviation	Detail
API	American Petroleum Institute
ASME	American Society for Mechanical Engineers
ASNT	American Society for Non-Destructive Testing
AWS	American Welding Society
CAR	Corrective Action Request
CWI	Certified Welding Inspector
IRC	Inspection Release Certificate
ISO	International Organization for Standardization
ITP	Inspection Test Plan
MCT	Material Control of Traceability
MRB	Manufacturer Record Book
MTR	Material Test Report
NCR	Non-Conformance Report
NDE	Non-Destructive Evaluation
NDT	Non-Destructive Testing
QMP	Quality Management Plan
QMS	Quality Management Registrar
QS	Quality Surveillance
SOW	Scope of Work

1 General

1.1 Purpose

The purpose of this document is to define the Quality Control elements that the chosen Supplier must adhere to, as outlined in the Purchase Order. These requirements are set to fulfill the project's needs and ensure adherence to specifications, codes, and standards referenced in the purchase order.

1.2 Definitions

The below words or expressions have the following meanings in the document:

- “Company” is Santos.
- “Representative”- a person or persons employed by a contractor acting on behalf of the Company. The words Purchaser can be utilized in lieu of Representative.
- “Sub-Supplier(s)”- suborder manufacturer or sub-contract or any other person who is engaged by Supplier in connection with this purchase order or contract,
- “Supplier” - a party that company enters into a written contract to provide either product or services. The words “Fabricator”, “Manufacturer”, “Vendor” can be utilized in lieu of Supplier.
- “Work”- the project carried out by Supplier defined in the scope of work and requirements defined in the purchase order.

1.3 Objective

The Supplier shall be responsible for all quality assurance activities necessary to ensure the work meets as a minimum the requirements specified in the purchase order.

All requirements applicable to the supplier shall also be applicable to its sub-suppliers.

The supplier shall establish and maintain a documented Quality Management System based on Quality Standard ISO 9001:2015, ISO TS 29001, API Q1 or equivalent, including scope for design control if applicable.

Effective implementation of the supplier’s quality system must be demonstrated to the Purchaser by any of the following means:

- Certification by an accredited third-party organization.
- Satisfactory audit by a major client within the past three years.
- A proven and active internal audit program and management review that meets the requirements of ISO or ASME standards.

The Certifications shall cover the manufacturing facility supplying the material or equipment. Notify the Company immediately of any renewals or changes to National or International Certifications including changes of QMS registrar.

The Quality System must ensure that an auditable trail of activities associated with carrying out the work is maintained.

The Company has the authority to participate in all activities in which the Representatives participates.

1.4 References

The reference documents listed below form an integral part of “Purchase Order Quality Requirements”. Latest revision of each referenced document shall be applicable and used.

Industry Codes and Standards
- International Organization for Standardization (ISO)
- ISO 9001:2015 Quality Management Systems – Requirements
Company/Project Specifications or Equivalent
-Quality Assurance Specification for Equipment, Material Manufacturers, Suppliers, Distributors
-Procurement Surveillance Plan
-Manufacturer’s Quality Record Book Requirements
- Quality Assurance Requirements for Drilling & Completions Equipment and Material Manufacturers

1.5 Conflict Resolution & Deviations from References

- Conflicts between the requirements of this specification and other referenced documents (POQR) shall be brought to the attention of the company in writing for resolution.
- If national or local regulations exist in which requirements are more stringent than in this specification, the supplier shall determine which of the requirements are more stringent and which combination of requirements will be acceptable regarding safety, environmental, economic, and legal aspects.
- In all cases, the Supplier/Purchaser shall inform the Company of any deviation from the requirements of this specification that is necessary to comply with national or local regulations.

2 Quality Requirements

2.1 Quality Plan / Manual

A Quality Plan/Manual of the Supplier’s Quality System must be submitted for the Purchasers’ review.

The plan must specifically detail how each element of the quality standard is applied to the work and must contain:

1. A system element outline.
2. Supplier’s organization chart for the work.
3. The list of procedures for the work.
4. The list of Inspection and Test Plans for work.
5. A schedule identifying internal and external audits, as applicable.

The Quality Plan must incorporate the requirements of the purchase order and must be available to all personnel engaged in the specified scope of work.

2.2 Quality Audit

The Supplier is required to establish an internal quality audit schedule encompassing various aspects of the scope of work. This schedule must extend to all sub-suppliers and sub-contractors and cover the following key areas: quality management, project management, engineering, document control, procurement, fabrication, preservation, and baseline-inspection data management. By conducting these audits, the Supplier aims to ensure that all involved parties adhere to the highest standards, fostering a culture of quality and efficiency throughout the project's lifecycle.

In addition to the internal quality audits, the company and its representatives hold the right to request an opportunity to audit the Supplier's Quality System as a means to verify compliance with the specific requirements of the project. Such an audit will be initiated through a written notice provided by the Purchaser. The Supplier is obliged to confirm its availability within seven days of the scheduled audit date.

Any findings during the audit that do not align with the required quality standards and PO requirements must be promptly addressed and corrected by the Supplier. Moreover, the Supplier may be required to submit their internal audit schedule to the Purchaser for review. This schedule, if requested, must be provided to the Purchaser before commencing the work.

These measures are put in place to ensure that the Supplier maintains the highest level of quality assurance throughout their operations, fostering transparency, accountability, and a commitment to meeting the project's stringent requirements.

2.3 Kick-off Meeting

Unless waived by the company, a kick-off meeting shall be conducted for all equipment. The meeting shall take place at a designated location agreed on by Purchaser and Supplier prior to commencement of detailed design. The supplier must be prepared to show the factory procedures they follow to ensure all requirements are met, including but not limited to, the project specifications, standards, code compliance, quality, inspection and testing, schedule, and shipping requirements.

These meetings may occur at the supplier's facility or on the phone dependent upon criticality level. Suppliers shall ensure their facilities are adequate to hold the meeting, all key personnel including the critical sub suppliers are available, and all relevant documentation is available to review at the meeting.

2.4 QMS and Continuous Improvement

The Supplier must establish a periodic review system to assess the effectiveness of their QMS *and implement improvements as necessary. When feasible, the Supplier should incorporate lessons learned from similar projects, subject to discussion and written approval by the Company. This approach ensures continuous refinement and fosters a culture of professionalism and efficiency within the project.*

3 Sub-Supplier Control

1. Supplier shall maintain a process, supported by written procedures, for the management of all sub-suppliers providing materials or equipment to the purchaser. The process shall include the following:
 - a. Comprehensive capability assessment and qualification of sub-suppliers.
 - b. Evaluation Criteria for selection and acceptance of sub-suppliers.
2. Supplier shall submit to Purchaser (for review and acceptance) a list of all proposed sub-suppliers with their bid. The list shall include:
 - a. Proposed or potential sub-suppliers for each supplier PO.
 - b. An Indication of which supplier POs are considered critical for the scope of work.
3. Sub-suppliers of elements that are deemed critical are considered “critical sub-suppliers” under this Specification. Critical sub-suppliers are subject to additional requirements as described herein.
4. The supplier shall ensure that all PO requirements (including quality assurance requirements) are known, understood, and applied by its sub-suppliers for their respective scope of work.
5. Supplier shall submit unpriced copies of its sub-supplier POs (coversheet or summary level information showing scope of supply) to Purchaser for review.
6. Unless waived by Purchaser, all sub-supplier documentation is subject to review. It shall be reviewed by the supplier to ensure compliance with PO requirements prior to submission to Purchaser for review.

4 Sourcing of Equipment and Material

The origin of material shall be limited to the USA, Canada, Western Europe, and Japan. Supplier shall only purchase materials and equipment from such mentioned origins. For verification, Supplier shall submit a list of material and equipment with associated country of origin for review and approval.

In the event Supplier requires using material or equipment with other origins than listed above, a formal “Request for Deviation” to the Purchaser shall be submitted. Such request shall be filled out by Supplier and formally submitted for consideration by the Company. The Company’s decision regarding the request for deviation shall be considered final. Suppliers must either comply with utilization of suppliers on the Approved Vendor List, or the PO may be cancelled by the Company and/or its Representatives.

5 Documents and Changes

5.1 Submission of Supplier Documents

The Supplier must submit the required documents defined in Section III of the purchase order to Purchaser for review. The Supplier must ensure that copies of the documents are also available to the Purchaser inspector at the location of the work for reference.

The Supplier's documents must address the system elements and activities appropriate to the work and the quality standards.

See Section 13, "Product Certification" for material/mill test report (MTR) requirements.

5.2 Drawings and Changes

Supplier's quality controls shall provide assurance that the latest applicable drawings, procedures, specifications, etc. and authorized changes are used for material, fabrication, inspection, and testing. Supplier's processes shall also provide assurance that obsolete information is clearly identified and/or removed from work areas.

Supplier's quality control procedures shall also provide assurance that where required, Supplier's technical document submittals shall be signed and stamped by the Purchaser to indicate conformance to the requirements of the purchase order.

For submitted documents, supplier shall work to drawings, documents, procedures etc. which have been approved by Purchaser or generated from these approved drawings. Purchasers reviewed drawings shall be signed off as:

C1 – "Reviewed & accepted as final & certified. Manufacture may proceed" or

C2 – "Reviewed and accepted as marked. Revise & resubmit. Manufacture may proceed."

5.3 Deviation Requests

The Supplier shall not deviate from the requirements of the PO documents and attachments without written concession or approval from Company. In the event of an identified need to deviate from a specified requirement, the Supplier shall utilize the approved deviation form. Request of Deviation shall state the requirement, the scope of the deviation, the reason for the request and any cost and/or schedule impacts. The Supplier shall maintain a register of all open and closed requests and shall be subject to review or audit by the Purchaser.

5.4 Quality Reporting

Critical Suppliers (assigned with inspection level 1) shall issue monthly quality reports, which shall include the following as applicable to work:

1. General Information:
 - a. Key activities and quality deficiencies that should be elevated to the Purchaser's attention.
 - b. Quality activities for the reporting period.
 - c. Control procedure approval status.
 - d. Quality activities planned for the next reporting period.
2. Procurement Quality Information:

- a. Supplier activity overview for the reporting period (pre-inspection meetings, Factory Acceptance Test schedules/status, Inspection Release Notice status, information on items shipped, key supplier documentation, and deliverable status).
 - b. Number of supplier inspections performed for reporting period.
 - c. Number of supplier inspections scheduled for the next reporting period.
 - d. POs issued for the reporting period.
 - e. Summary of supplier quality oversight activities planned for the next reporting period,
 - f. Ongoing supplier quality issues that are being resolved, particularly ones that involve scheduled delays.
3. Deficiency Information:
- a. Total Number of NCRs/CARs issued.
 - b. Number of NCRs/CARs closed for the reporting period including the action taken to resolve the NCR.
 - c. Number of NCRs/CARs issued for the reporting period.
 - d. Identification of NCR/s CARs (NGE-QAPRO-000003) that may impact the preservation and preventative maintenance, fabrication, construction, or completions schedule, and should be elevated to the Purchaser.
4. Status of development and acceptance of quality documentation.
5. Fabrication Information:
- a. Number of inspectors at the Fabricator and Fabricator's Sub-suppliers.
 - b. Welding status including but not limited to:
 - i. Overall NDE rejection rate for the project.
 - ii. NDE rejection rate for the week including the welder(s) identification.
 - iii. Number of welds receiving NDE during the reporting period.
 - iv. Number of welds rejected for the reporting period.
 - v. Number of welds receiving NDE during the previous reporting period.
 - vi. Number of welds rejected for the previous reporting period including the welder(s) identification.
 - vii. Rejection rate for the previous week
 - viii. Description of areas where welding activities are having difficulties, and what is being done to rectify the issue(s).
 - ix. Planned number of welds for NDE in the coming week.
 - x. Welding productivity metrics.

5.5 Change Control

- Supplier's QMS shall provide for control of documentation relating to the quality of the materials and services specified in the PO.
- Supplier shall ensure that changes to the PO, specifications, drawings, and other documents affecting the work are identified, controlled, and distributed to personnel, sub-contractors, and sub-suppliers responsible for performing, checking, testing, inspecting, approving, and releasing the work.

- Changes that affect the scope of the work and services defined by the PO shall be subject to review, verification, and written approval by the Company.
- Supplier shall establish a documented process to manage all types of changes, concessions, technical queries, deviations from the purchaser order, and other applicable codes & standard requirements.

6 Material Control and Records

6.1 Receiving Inspection

Prior to receipt of materials/equipment, the Purchasers' Inspector shall review the purchase order, change orders, and specifications to determine the inspections and/or verifications to be performed, and all hold points. If specified, upon receipt of material/equipment, the Purchaser's Inspector shall perform receipt inspection. The scope of the inspection shall include the material or equipment and associated supplier documentation including preservation requirements.

6.2 Material Control & Traceability (MCT)

Suppliers shall have an MCT system that ensures purchased material is properly identified, inspected, and controlled. It must be compatible to the application and requirements of the purchase order. Required material certifications and test reports shall be furnished, and available for review by the Purchaser's Inspector. System shall ensure that the intended material is used in fabrication and assembly and that traceability of that material to the end use is maintained in accordance with applicable codes, standards, and specifications.

Where traceability is specified for materials, individual components, or sub-assemblies, it must be executed by means of hard stamping, indelible marking, or other approved means and supported by documented records. Hard stamping of certain alloys is not permitted.

When specified, the supplier shall ensure they are verifying material type and grade against certification on receipt and/or during fabrication/assembly using positive material identification (PMI). PMI methods and personnel shall be subject to Company/Representative review.

6.3 Inspection & Test Records

Supplier shall maintain adequate records of all inspections and tests. Records shall indicate the nature and number of observations made; the numbers and type of deficiencies found; the quantities approved and rejected, and the nature of corrective action. Supplier records shall be made available to Purchaser's Inspector for review.

6.4 Measuring & Testing Equipment

Suppliers shall provide and maintain gauges and other measuring and testing devices necessary to assure that the work products conform to the technical requirements of the PO documents and

attachments. To ensure continued accuracy, these devices shall be calibrated per established intervals against certified standards, which have known valid relationships to national standards.

The calibration of measuring and test equipment shall be addressed in the Suppliers' Quality System. The Suppliers' calibration procedures shall be made available for review and approval to Purchaser's Inspector. Suppliers shall implement and maintain a calibration and accuracy-checking system for all inspection and measuring test equipment used in accordance with ISO 10012.

7 NCR and Corrective Actions

7.1 Control of Non-Conformance (NGE-QAPRO-000003)

Supplier will provide a documented and effective system to identify, segregate and disposition material that does not conform to the PO and referenced documents. Non-Conformances which cannot be corrected to comply with the specifications and for which the supplier recommends a "use as is" or "repair" disposition will be promptly reported to the Purchaser. Any material found to be "out of conformance" shall not be used, unless approved by the Purchaser and documented in writing.

Supplier shall not use any material or equipment until remedial work has been completed, and inspection and tests have been completed and accepted by all parties involved.

Purchaser's Inspectors shall be provided with access to all the internal NCRs issued by Supplier.

7.2 Corrective Action

Supplier shall take prompt action to correct conditions that have resulted in a non-conformance. This is applicable to the goods or services that do not conform to PO requirements.

8 Inspection

8.1 Inspection Activity Terms

Hold Point - (H) An important step or process in the manufacturing cycle that is a mandatory inspection point before the next manufacturing step, documentation compilation, or staging operations. The Supplier shall notify the assigned inspector five (5) working days for domestic inspection and ten (10) working days for international inspection in advance of the scheduled hold point. The specific hold point is a nominated point beyond which work shall not proceed without verified acceptance by the Supplier. Waiver of any hold point can only be authorized by the Purchaser's Project Manager or their designee. All waivers must be documented in writing.

Note: All Hold Points to be considered as Witness Points for inspection on API Equipment.

Witness Point – (W) An important step or process in the manufacturing cycle requiring the presence of the Purchaser's Inspector. An advanced five (5) working day notification by the supplier to the inspector is required each time the activity is to be performed. Failure of the inspector to be present at the witness

point shall not delay the supplier. They may proceed without the presence of the inspector, but only after the five-working day notification has been acknowledged to have expired.

Note: All Witness Points to be considered as Observation Points for inspection on API Equipment.

Inspect Point – (I) Defined as random in-process surveillance activities, including detailed observations and measurements, continuous evaluation of the status of methods and analysis of record that verify compliance with project specifications and PO requirements.

Review Point – (R) An inspection process in which the inspector checks the documentation for accuracy and content in relationship to the object or items to which they represent for conformance to the specifications, codes and/or standards. The review, stamping, initialing, and dating of the documents by the inspector does not constitute approval.

8.2 Base Line Inspection Data

- Supplier shall implement a Baseline Inspection Data Gathering Plan to measure and collate the data at determined corrosion monitoring key points as recommended by API RP 970, Corrosion control documents, downstream segment, and Company Functional Specification, NPF-GESPC-000001.
- Supplier must request, in writing, to obtain any clarifications required on the scope and company specifications to fully understand the corrosion monitoring key points requirements.
- The Baseline Inspection and NDT shall be performed by competent personnel using correct equipment and techniques, and results shall be reported correctly and interpreted to applicable codes.
- Supplier shall carry out preliminary "as-built" checks of thickness and major dimensions on all static mechanical equipment, process piping, and structural members, and record the data in the company provided formats.
- Supplier shall submit the original test certificates (or certified true copies) and associated documentation relevant for all static mechanical equipment, process piping, and load-bearing structural components in native form along with baseline inspection data to the Company to upload into its database.

8.3 Supplier Inspection and Test Plan (ITP)

The Supplier must prepare and submit ITPs to the purchaser for review. The supplier must not commence fabrication or manufacture prior to the review and acceptance of ITPs by the purchaser.

ITPs shall be structured and detailed to address all in-process activities (e.g., procedural development steps, procurement/material receipt steps, manufacturing steps hold points, NDE, and testing steps) necessary to complete the work.

When activities are to be performed in multiple supplier locations or at sub-supplier's facilities, the supplier ITP shall list the specific location of each activity listed with key contact personnel information, or a sub supplier ITP is submitted for Purchaser review.

When activities are to be performed in multiple components or assemblies, the supplier ITP shall list identifying information (e.g., part number, assembly name) for each activity.

Activity associated with sub-suppliers shall be incorporated into the supplier ITP, or a sub-supplier QC/ITP conforming to the requirements of this specification and shall be submitted for Purchaser review and acceptance.

The format of ITPs will be at the discretion of the supplier but must include or specify the following as a minimum:

1. Description of the activity to be performed.
2. Description of each test, examination, or inspection.
3. Reference to applicable codes, standards, specifications, and procedures governing the activity.
4. Controlling specification or procedure – applicable verification document(s).
5. Applicable acceptance criteria.
6. Hold point, witness point, review point and inspection point requirements of the Supplier (or Sub-Supplier), Representative, Company, certifying authorities, and statutory authorities where applicable. To enable Purchaser and others to nominate their requirements, a column for each party needs to be available in the ITP.
7. Spaces shall be provided to permit signing and dating by each party for all witness and hold points.

See sample ITP in Appendix B.

8.4 Inspection Activity Levels

Purchaser will perform surveillance inspection at the supplier's premises, the sub -supplier's premises, or at the location of the work. The Level of Inspection by Purchaser is defined as follows:

8.4.1 Level 1

Full-time resident inspection. An Inspection Engineer conducts progressive monitoring and examination of the work from commencement of manufacturing to final acceptance at supplier's facility in-line with approved ITPs. This shall include performance of all in-process inspection activities required every day that the supplier is manufacturing equipment for the referenced order including:

1. Review of Supplier's quality control system.
2. Approval of ITPs of major suppliers of every tier.
3. Attend pre-inspection meetings.
4. Scrutinize raw material test certificates and physical verification of major raw Materials i.e., castings, plates etc.
5. Witness / monitor fit-ups, alignment, and assembly.
6. Verify the use of qualified welders and welding procedures.
7. Witness of major manufacturing stages and repairs.
8. Witness, monitor, and review of NDE tests and results.
9. Final visual and dimensional inspection of equipment.

10. Witnessing of pressure, FAT(s), leak, and performance tests followed by inspection of disassembled equipment, as applicable.
11. Review final tagging and preparation for shipment, packing, marking, and preservation.
12. Review the manufacturing record book, material certifications, weld procedures and qualifications, fit-up and dimensional inspections, non- destructive and destructive examinations, final testing (hydrostatic, pneumatic, etc.) records, coating and paint inspections, code data reports, and data packages.
13. Issue of Inspection and Shipping Release Notes.

8.4.2 Level 2

In-process surveillance inspection on a regular basis as specified/required (e.g., weekly, monthly) in the approved ITPs. Participation in a pre-inspection meeting and surveillance inspection of equipment prior to shipment and shall include all activities from Level 1.

8.4.3 Level 3

This inspection includes a pre-inspection meeting, one or more progress surveillance visits, scrutiny of manufacturer's quality system, final condition or as-built examinations/tests, and surveillance inspection of equipment prior to shipment. This includes the following activities as minimum:

1. Reviewing all quality control records for conformance.
2. Check on materials and material traceability.
3. Final visual and dimensional inspections.
4. Witnessing of pressure, FAT(s), leak, and performance tests followed by inspection of disassembled equipment, as applicable.
5. Painting and insulation inspections.
6. Verification of packing and marking identification.
7. Review the manufacturing record book and approved MRB index.
8. Issue of Inspection and Shipping Release Notes.

8.4.4 Level 4

It consists of a pre-inspection meeting and a final inspection visit prior to packing and shipment. Inspection is limited to the following: review of mill test reports, material certifications and traceability, code data reports, data packages, weld procedures, final visual/ dimensional inspections, and Inspection /Shipping Release Notes

- Purchaser also reserves the right to communicate with Supplier's Inspector directly and make joint visits for inspection, witnessing tests, and evaluating the Supplier Inspector's performance.
- For purchase orders with multiple pieces of equipment or batches of material governed by the same ITP, a unique copy of the ITP shall be maintained for each piece of equipment or batch of material.
- The supplier shall sign and date each ITP step as it occurs and is accepted.
- Each inspecting party shall sign and date each inspection point on the ITP as it occurs and is accepted.

- Suppliers shall conduct receiving, in-process, and final inspections in accordance with purchaser-accepted QAP, ITPs, and procedures. Supplier inspections shall also cover the material and services provided by sub-suppliers.

SPECIAL NOTES:

- ITP included in the requisition specifies the level of Quality Surveillance (QS).
- Purchaser reserves the right to increase or decrease the level of QS based on supplier performance.
- The Company reserves the right to accompany the Purchaser inspector on all surveillance activities.
- Supplier shall furnish one (1) reproducible copy of any contractually required quality documentation to the Inspector upon request. This copy is in addition to those required to be submitted to supplier's document control as a PO requirement.
- The Inspector will advise Supplier of any noted deficiencies during order of execution and a Non-Conformance Report (NCR) form shall be issued. The supplier shall satisfactorily resolve any identified deficiencies prior to shipment.
- Company representative(s) shall have the following access and rights:
 - Progressive review of all records, logs, reports, certificates, and documentation related to the manufacturing, fabrication, assembly, and testing of equipment included in the Purchase Order.
 - Permission to take photographs, videos, or any other relevant visual material in connection with the manufacturing, fabrication, assembly, and testing processes.

8.5 Inspection by Purchaser

Purchaser shall have unrestricted access to inspect any item, process, procedure, or part of the supplier's or sub-supplier's facilities associated with the scope of work, including documenting inspection observations via reporting and photography.

Supplier shall ensure all documentation related to the PO (including applicable codes and standards), calibrated instruments, and measuring tools are always readily available to the Inspector(s) at supplier and sub-supplier facilities.

Purchaser shall reserve the right to communicate with any Inspector to plan for joint visits to sub-supplier facilities for inspection, witnessing tests, and evaluation of the supplier inspector's performance.

Inspection by Purchaser shall neither relieve the Supplier of complying with the PO requirements nor affect supplier's warranty of the equipment and/or materials being provided.

8.6 Pre-Fabrication/Inspection Meeting

A Pre-fabrication/Inspection Meeting between the Supplier, Sub-Supplier, Purchaser and Company (as applicable) shall be conducted prior to the start of fabrication. It will be scheduled by mutual agreement between the Purchaser and the Supplier. Supplier shall have the Quality Plan (including typical or job-

specific ITPs), a preliminary schedule and production/fabrication status available for discussion during the meeting. The agenda will be prepared by the Purchaser with input from the Supplier as required.

The Pre-Fabrication/Inspection meeting shall take place at the fabrication or manufacturing location before Supplier begins to fabricate. The Supplier must be prepared to show the procedures it will follow to ensure the equipment supplier meets all contractual requirements, including, but not limited to:

- Project specifications and standards.
- Quality, inspection and testing, schedule, and shipping requirements.

Supplier shall ensure that the facilities are adequate to hold the meeting, all key personnel are available, and all relevant documentation is available for review at the meeting. Santos will be invited and their representative(s) or its delegate(s) may attend the Pre-Fabrication/Inspection Meeting at their discretion. Supplier shall provide advance notification of 10 (ten) working days.

9 Welding Heat Treatment Non-Destructive Testing and Positive Material Identification

9.1 Welding and Heat Treatment

Supplier shall have procedures in place for the control of welding/fabrication procedures, welder qualifications, storage/handling of welding consumables, etc. to ensure welding is carried out in accordance with the requirements of the following codes or an approved equivalent, or as specified in the PO documentation.

Boiler & Pressure Vessel: ASME VIII
Power Piping: ASME B31.1
Process Piping: ASME B31.3
Hydrocarbons / Liquid Petroleum Gas Pipelines: ASME B31.4
Gas Transmission and Distribution piping System: ASME B31.8
Pipelines: API 1104
Corrosion Control Document system: API RP 970
Structures: AWS D1.1

The following documents shall be presented for review by the Purchaser prior to any work being carried out.

- Copies of Welding Procedure Specifications (WPSs) and Procedure Qualification Records (PQRs) shall be available at the work location.
- Welding shall be carried out by operators/welders, qualified and experienced for the type of work to be undertaken and possessing valid testing certificates for the material being welded.
- Welding consumables are to be stored and used in accordance with manufacturer's recommendations and relevant fabrication codes with traceability to point of use.

The performance and control of heat treatment shall be the responsibility of the supplier or sub-supplier. The Supplier shall submit heat treatment procedures to Purchaser for review.

Overall, Supplier shall maintain a process, supported by written procedures, for the control of its welding operations, including training and qualifications, consumable control, process control, calibration of welding equipment, traceability of welds to welders, control of weld repairs, and tracking of welder performance. This requirement shall apply to any sub-suppliers that perform welding, regardless of the location where sub-supplier work is performed.

9.2 Non-Destructive Examination (NDE) Testing

Suppliers shall maintain a process in accordance with ASNT SNT-TC-1A or equivalent, supported by written procedures, for the control of its NDE operations, including training and qualifications, process control, calibration of NDE equipment, traceability of the NDE operation to the equipment or material characteristic being examined, and tracking of NDE technician performance.

Supplier NDE operators shall maintain ASNT Level II certification or higher in the relevant NDE discipline.

These requirements shall apply to any sub-suppliers whose products require NDE as well as any sub-contracted NDE operations.

9.3 Positive Material Identification (PMI)

The Purpose of PMI is to ensure that the nominal composition of the material specified has been correctly supplied and documented.

The PMI Program, its formulation and implementation, shall be the supplier's responsibility.

Implementation of the PMI Program does not release the suppliers from the responsibility of furnishing the specified materials. When establishing a PMI Program, definition shall be given to the roles and responsibilities of accountable personnel and sub-suppliers.

A written PMI program indicating the testing procedure, operator qualification and extent of PMI testing to be conducted during the receiving, manufacturing and final inspection process shall be formulated by Supplier and submitted for Purchaser's review.

Certified Material Test Reports (including those certified by a third party) are not to be considered as a substitute for PMI, and vice versa.

Purchaser reserves the right to witness and audit examinations performed. Refer to the PMI specification NGE-QASPE-100001 for further information.

A log shall be kept identifying each component that has been alloy-verified and the results of the testing shall be recorded in report form and shall be traceable back to the component.

9.4 Hydrostatic Testing

1. The equipment shall be hydrostatically tested as per the requirements of the PO, applicable codes, Alaska State Regulatory requirements, and environmental regulations for drainage of water after the test.
2. The type/material of gaskets used for hydrostatic testing shall be the same as the service gasket.
3. The selection and quality of water used for the hydro-test of equipment will meet the requirements of the PO specifications and applicable industry codes.
4. The membrane stress in any part of the vessel during the hydrostatic test shall not exceed 90% of the minimum yield strength of the material.
5. The hydrostatic test fluid shall be potable water with ≤ 25 ppm chlorides content; unless a substitute liquid is deemed necessary, as specified in the project specifications. A clear water methanol solution may be used when necessary to prevent damage from freezing.
6. If the test includes austenitic stainless steel and all water cannot be completely drained or otherwise immediately removed, water with 0 ppm to 5 ppm chloride content shall be used for the test or for flushing immediately after the test.
7. For packaged piping systems that do not require hydrostatic testing for closure welds, they will be tested as per the company-approved procedure. This adjustment must be agreed on by all involved parties- during the design stage. The supplier shall submit the procedure a minimum of 4 weeks prior to the alternate test date.

9.6 Personnel Qualifications

All personnel responsible for performing activities stipulated under the Supplier's Quality plan including but not limited to personnel performing welding, NDE, PMI, heat treatment, inspections, electrical and instrumentation, etc. must be qualified and have a familiarity with applicable code requirements, standard testing procedures and industrial fabrication and construction practices.

- Welders shall be qualified in accordance with ASME Section IX or AWS D1.1, whatever applicable to the nature of the work.
- NDE technicians shall be certified to ASNT-TC-1A.
- Fabrication/welding inspectors for pressure piping shall be a CWI or equivalent certification.

9.7 ASME Authorized Inspection (AI)

Supplier shall include in the scope, the responsibility to comply with ASME and any other code certifications or classifications and obtaining classification certificate or ASME code stamp for pressure vessels, heat exchangers, and any other equipment and materials, as applicable per specifications and statutory regulations, including UL Certification for safety-critical equipment.

10 Manufacturing Record Book

The supplier is required to submit a comprehensive description of the content contained within the Manufacturer's Quality Records (MRB) to the purchaser for review. The MRB should include all relevant reports, and it is mandatory that each report bears the inspectors' stamps and signatures. The compilation and updating of the Manufacturer's Quality Records shall adhere to the guidelines outlined in the referenced specification found in Section 2.0, specifically OGE-QASPE-000004, which details the Manufacturer's Quality Record Book Requirements. Furthermore, the supplier is responsible for submitting these records in accordance with the contract requirements in a timely manner.

- MRB content shall include the following at a minimum:
- As-built design documents (drawings, data sheets, calculations, etc.),
- MTRs and any related traceability records,
- Welding procedures used during fabrication,
- Qualifications of welders used during fabrication,
- Completed weld and NDE maps,
- Calibration records for instruments and testing devices used during fabrication,
- Completed QC/ITP and all verification documents referenced therein,
- All NCRs, CARs, and deviations,
- Documents recording compliance with statutory requirements,
- Any other documents required by the PO Section III.

Suppliers shall retain copies of all MRB records.

Every document produced prior to fabrication will be verified to confirm that the Purchaser's Engineer has reviewed the document and the Purchaser's Inspector will sign and stamp every document produced after fabrication.

MRBs without these signatures and/or stamp will be considered incomplete. See MRB Spec NGE-QASPE-000004 for more details.

11 Handling and Shipping

11.1 Carry Over Work

Prior to shipment of any partially completed work scope, the inspector shall agree and formally record a list of all outstanding deficiencies. This Punch-List/Carry Over Work will be then signed off by the Project & Construction Managers of the Company or its Representative.

11.2 Handling, Storage, Shi & Transportation

Supplier shall establish procedures to assure that items are cleaned, handled, packaged, stored, and shipped in a manner to preclude damage and deterioration. Development of these procedures shall be in

compliance with PO specifications. This may include providing an inert atmosphere for equipment to mitigate corrosion.

11.3 Tagging

All Items are to be identified with either a stainless-steel tag or nameplate. Due to limited space to affix the tag/nameplate, alternates such as attaching a loose wired stainless-steel tag, phenolic tags, marking on the material or marking a box will be acceptable based on the type of material and prior approval from the purchaser.

Every tag/nameplate should include the PO No., Tag No., and Line-Item No., as a minimum.

12 Preservation

Supplier shall detail the following in the quality plan or provide in another plan:

- Any off-site product storage following completion of fabrication / testing.
- Weighing of shipment if required – applies to equipment with estimated dry weight on drawings versus actual weight per scale or under hook load.
- Loading and shipping.
- On-site product storage and preservation.
- Responsibilities, authorities, and records pertaining to the stages above.

If the supplier has developed a logistics and materials management plan, addressing the above requirements, then the quality plan shall merely reference the logistics and materials management plan.

13 Product Certification

1. Product supplied for the work must be of known quality and must carry certification as nominated in applicable specifications, codes, or standards.
2. Where applicable, certification must be in accordance with EN 10204 (or DIN 50 049) and must be fully identifiable by heat/batch number, markings, or similar to the product or item to which it pertains.
3. Certificates provided to purchaser shall be the originals or legible first-generation copies of the original certificate. Certificates that are accepted by a Purchaser's Inspector (shown by stamping and signing).
4. Certificates provided by distributors are not acceptable unless accompanied by certificate as per above section 3.
5. Purchaser shall perform 100% or random examination of material certificates to check compliance with the technical specification or PO and this specification.
6. Certificates shall be written in the English language and shall be complete, unambiguous, legible, and suitable for electronic scanning. Certificates in other languages will only be accepted if they are supplied with an endorsed English translation by an authority acceptable to the Company.

7. Supplier and all sub-suppliers shall maintain a process, supported by written procedures, to establish material origin and traceability of materials, parts, and components, including partially fabricated assemblies.
8. Supplier shall ensure that all material test reports (MTRs) state the origin and point of manufacture of the corresponding materials.
 - a. MTRs conforming to EN 10204 Type 2.2, at a minimum, shall be required for non-pressure- containing components.
 - b. MTRs conforming to EN 10204 Type 3.1, at a minimum, shall be required for pressure-containing components.
 - c. Where required by industry codes or regulatory bodies, MTRs conforming to EN 10204 Type 3.2 shall be required for pressure-containing components.
9. Supplier shall ensure that materials are identified and traceable to their related records (e.g., MTRs) at any stage of production.
 - a. Identification of an Item shall be addressed either by using tags, stamps, stencils, or labels as required by the PO documents or accepted by the Purchaser.
 - b. Supplier shall ensure that all MTRs and supporting documentation are legible and reproducible.
 - c. Traceability shall be maintained in accordance with the PO and all statutory requirements.
 - d. Purchaser shall reserve the right to reject materials that cannot be clearly traced to their origin and point of manufacture.

EN 10204 Type 2.2 - Document in which the manufacturer declares that the products supplied are in compliance with the requirements of the order and in which the test results based on non-specific inspection.

EN 10204 Type 3.1 - Document issued by the manufacturer in which he declares that the products supplied are in compliance with the requirements of the order and in which he supplies test results.

The test unit and the tests to be carried out are defined by the product specification, the official regulation, and corresponding rules and/or the order.

All documents provided by the supplier and the sub-supplier should be in the Imperial SI Units.

The document is validated by the manufacturer's authorized inspection representative, independent of the manufacturing department.

It shall be permissible for the manufacturer to transfer on to the inspection certificate 3.1 relevant test results obtained by specific inspection on primary or incoming products he uses, provided that the manufacturer operates traceability procedures and can provide the corresponding inspection documents required.

Refer to Appendix A for Minimum Material Certification Categories.

14 Health, Safety and Environment (HSE) Requirements

Company and its Representative have a common philosophy regarding Health, Safety & Environment (HSE) Management, which focuses on providing employees and contractors with the tools and training necessary to achieve our common goal of zero losses and incidents. Companies are focused on achieving world-class performance while safely delivering the energy needed to power human and economic progress worldwide. Purchasers achieve this goal through their OneWay™ to Zero Harm program, which is similarly focused on achieving industry leadership in zero harm to employees and contractors, assets, and the environment.

Throughout the duration of the project, both Company and its Purchaser’s Personnel will be present at vendor sites for inspections. Because the care and control of the fabrication shop is and will remain under the jurisdiction of the owner during project execution, Company and its Purchaser cannot provide direction on HSE program implementation following contract award. Therefore, it is critical that successful vendors have a behavior based HSE program already in place that aligns with the values of the Company and the Purchaser.

Additionally, to confirm Company and Purchaser’s Employees remain protected throughout the duration of the project, our team expects that successful vendors will provide access to project HSE Personnel to:

- Observe and monitor HSE performance at the facility.
- Conduct periodic field inspections for compliance with HSE program contents.

Furthermore, any equipment design completed by the vendors must be completed with consideration of reliability, ergonomics, operability and general HSE in areas including, but not limited to:

- Accessibility of equipment, valves, instrumentation, and controls for Operations Personnel.
- Accessibility of equipment, valves, instrumentation, and controls for maintenance activities.
- Accessibility of equipment, valves, instrumentation, and controls during emergency conditions, including when Operations or Emergency Response Personnel are wearing personal protective equipment (PPE); and
- Guarding for moving and live parts.

15 Appendices

Appendix A – Minimum Material Certification Categories

Group	Item	Type	Comments
Combustion gas turbines	Combustion gas turbines	3.1	
	Combustion gas turbines	Nil	Note 1

Group	Item	Type	Comments
Reciprocating compressors	High stress, high temperature components.	3.1	
	All other parts	Nil	Note 1
Centrifugal compressors	Pressure containing parts.	3.1	
	Parts not in contact with compressed gas	Nil	Note 1, Note 2
	Parts in contact with compressed gas and rotating components.	3.1	Note 3
	Impact tested parts.	3.1	Note 4
	Main nuts and bolts.	3.1	
Reciprocating pumps	Pressure containing and impact tested parts	3.1	Note 5
	All other components	Nil	Note 1
Centrifugal pumps	Pressure containing and impact tested parts.	3.1	Note 5
	Non-ferrous materials in non-hazardous and non-hydrocarbon services	Nil	Note 1
	Shafts and impellers	3.1	
	Wear rings and shaft sleeves	3.1	
Process instrumentation	Electronic or electrical instruments for use in hazardous areas.	3.1	Hazardous area certification.
	Pressure retaining components (including bolting)	3.1	
	Other equipment	Nil	Note 6
Switch / control gear and electrical instruments	Certified electrical equipment for hazardous areas	3.1	Hazardous area certification
	Electrical switchboards, electronic control panels, controllers, PLCs	3.2	Note 7
	All other equipment	Nil	
Wires, cables, and accessories	Certified electrical equipment for hazardous areas	3.1	Hazardous area certification
	Cable (high voltage)	2.1	>1000 volts
	Cable (low-medium voltage)	Nil	< 1000 volts
Vessels	Shell plates, heads and other pressure retaining components	3.1	
	Internals not welded to pressure parts	2.2	
	Internal filters/pads etc (non-metallic)	2.2	
	Lifting lugs, tubes, internals, skirts and any non-pressure parts welded to pressure containing parts	3.1	
Flanges	Carbon steel	3.1	
	Stainless steel (304, 316L etc)	3.1	

Group	Item	Type	Comments
	High alloy (Inconel etc)	3.2	
Carbon steel line pipe	API X60 and over	3.2	
	All other grades	3.2	
High alloy or CRA line pipe	All grades and sizes	3.2	
Pipe and fittings	Steam service	3.1	
	Process (including hydrocarbon service)	3.1	
	Instrumentation tubing	2.2	
	Ancillary services (e.g., firewater, lube oil)	3.1	
	Malleable iron (ASTM A197, BS 1740)	2.2	
	Tube adaptors	2.2	
	Compression fittings	2.2	
	UPVC	2.2	
Valves	Pressure retaining components	3.1	Body, bonnet, cover
	Moving components	3.1	
	Seals – metallic	3.1	
	Seals – soft/non-metallic	2.1	
Structural steel	Primary and secondary.	3.1	Includes tubular and sections
	Tertiary and miscellaneous	2.2	
Bolting	High tensile.	3.1	
	Pressure retaining duty	3.1	Type 2.1 certificate needed for coatings
	General structural applications	2.1	
Gaskets	CNAF	2.1	
	Neoprene	2.1	
	Ring joints, soft iron	2.1	
	Ring joints, stainless steel, Inconel etc	3	
	Spiral wound	2.1	
Hoses	Hose material	3.1	
	Hose with fittings	3.1	Note 8

Group	Item	Type	Comments
Welding consumables	All types and grades.	3.1	

Certification Type Supplier Document

The certification types nominated above shall conform to the definitions given in BS EN 10204 -2004 (DIN 50 049).

Notes to Appendix 1:

1. Certification type NIL unless specified otherwise in technical specification or data sheets.
2. Diaphragms or bearing housing.
3. Shafts, impellers balance pistons, shaft sleeves, internal bolting.
4. Rotor shafts, impellers, shaft sleeves.
5. Where pumps are used in critical services, or if additional impact testing is specified for any pump materials, then the PURCHASER may require 3.2 certification.
6. Unless defined in the equipment data sheet.
7. Certification type 3.2 required for selected and critical items as deemed necessary by the Requisitioning Engineer.
8. Including bursting test certificate.

Appendix B – NOI (NGE-QATEM-000002)

NOTIFICATION FOR INSPECTION			
Procurement Details:			
NOI No.:	NOI Revision:	NOI Date:	
Purchase Order No (& Rev.):	Vendor / Supplier Name:		
Material Inspection Details:			
Inspector's Name: <small>(To be filled by Contractor)</small>	Date of Inspection/Period:	No of Days of Inspection:	
Place of Inspection: <small>(Please give completed address where material will be inspected, attach route map if required)</small>	Name of Contact Person for this Inspection:		
	Contact No and email of Person for this Inspection:		
Type of Inspection: <input type="checkbox"/> Pre-Inspection Meeting <input type="checkbox"/> Initial <input type="checkbox"/> In-process <input type="checkbox"/> Doc Review <input type="checkbox"/> Final <input type="checkbox"/> Pre-Shipment			
Remarks: <small>(any specific inspection, test or review needed)</small> _____ 			
ITP No & Rev:			
Sr. No	ITP Activity No	Inspection Date	ITP Activity Description
<small>(Extend this Table for additional entries)</small>			
Material Offered Details:			
PO Item numbers / Tag Nos. and Quantity to be inspected:			
PO Item No	Quantity <small>(Unit XXX)</small>		Material Description <small>(Include Tag No for Tagged Items)</small>
	PO Qty	Offered in this NOI	
		Previously Released	
<small>(Extend this Table for additional entries)</small>			
PO Completion Status <small>(Considering this NOI quantities)</small>		<input type="checkbox"/> Partial; If partial _____ % <input type="checkbox"/> Complete	
To be completed by STO			
Check Appropriate Box		<input type="checkbox"/> Will Attend <input type="checkbox"/> Waived	
Accepted by:		Date:	

Appendix C – Inspection and Test Plan (NGE-QATEM-000003)

Inspection and Test Plan (ITP)										
Purchaser:							QC/ITP No.:			
Purchaser Order No.:							Revision:			
Supplier Order No.:							Date:			
Project Name:										
Tag/Item No.:							Location:			
Description:										
Item No.	Item/Component Under Inspection	Inspection/Test Activity Description	Reference Procedures/Standard	Quality Characteristic to be Verified	Acceptance Criteria	Recording Document	Type of Inspection Point			
							Supplier	Purchaser Inspector	End User	
12	Q125 Plain End Pipe	Hydrostatic test	API 5CT	Hydrotest Pressure Hold Time	API 5CT Sec 10.12	Hydrotest Report 23.43	H	W		
Inspection Point Legend: H = Hold; W = Witness; M = Monitor; R = Review										
R = Document Review: Review of documentation such as reports, testing records, procedures, qualification records, and data book (e.g., dossier/manufacturing records book [MRB]).										
In-Process Inspection Point (I): Random witnessing of the production, inspection, or testing activities. No notification by the Supplier is required.										
W = Witness: Witness of production, inspection or testing activities by Purchaser. Supplier shall notify Purchaser at least seven (7) working days in advance. If Purchaser does not elect to be present, Supplier may proceed with the intended activity with written approval from Purchaser provided test reports are compiled and made available for Purchaser review at a later date.										
H = Mandatory witness of production, inspection or testing activities by Purchaser. Purchaser shall be notified at least ten (10) working days in advance and shall be present during the specified activity.										

Appendix D – Quality KPI Status and Information

Quality KPI status and information (From 26/Jan/2020-25/Feb/2020)					
	Quality Indicator	Measure	Threshold	Actual	Data
KPI 01 – QMS Effectiveness	Audits and reviews.	Performed/Planned Highlight those re-scheduled	> 90 %	100%	Performed:1 Planned:1
	Closure of audit findings	$\frac{\text{No. cleared in month} \times 100}{\text{No. req. by due in the month}^*} > 90 \%$	> 90 %	100%	No. cleared :3 No. req.:3
	Quality Resources	$\frac{\text{No. of resources} \times 100}{\text{No. of planned}}$ Confirm establishment positions	> 90 %	176.32%	No.of resource:67 No. of planned :38
	Lessons Learned and Flaws Mitigated	$\frac{\text{No. mitigated learnings/Flaws} \times 100}{\text{Total No. flagged for mitigation}}$	> 90 %	100%	No. mitigated learnings/Flaws: 7 Total No. flagged for mitigation: 7
KPI 02 – Quality in Design	HAZOP actions outstanding	$\frac{\text{No. outstanding} \times 100}{\text{No. raised}}$ Highlight by type (e.g., HAZOP / HAZID)	> 90 %	100%	No. Outstanding:0 No. raised :0
	Holds outstanding	$\frac{\text{No. design issues/queries closed in month} \times 100}{\text{Total number raised}}$	> 90 %		No. design issues/queries closed:11 Total number raised : 11
	No. Design Changes and/or Deviations resulting in changes to design basis	No. design changes and/or deviations resulting in changes to design basis		2	No. design changes and/or deviations resulting in changes to design basis : 2
	Design deliverables	$\frac{\text{No. of document delivered late} \times 100}{\text{No. required by schedule}}$	< 5 %	0%	No. of document delivered late : 0
	Compliance to Technical Assurance Plan	$\frac{\text{No. of documents approved by approval authority} \times 100}{\text{Total No. of documents approved}}$	> 98 %	98.11%	No. of documents approved by approval authority : 52 Total No. of documents approved : 53
KPI 03 – Quality in Supply Chain	Closure of Supply Chain NCRs	$\frac{\text{No. closed in month} \times 100}{\text{No. req. by due date}^*}$	> 90 %	100%	Supply Chain NCRs : 0
	Holds outstanding	$\frac{\text{No. interface issues/queries closed in month} \times 100}{\text{Total No. outstanding}}$	> 90 %	100%	No. interface issues/queries closed:3 Total No. Outstanding:3
	ITP witness and hold points	$\frac{\text{No. of witness \& hold points missed} \times 100}{\text{No. of witness \& hold points scheduled}}$	< 5 %	0%	No. of witness \& hold points missed:0 No. of witness \& hold points scheduled:12
	Quality Records & Data outstanding	$\frac{\text{No. of documents delivered late} \times 100}{\text{No required by schedule}}$	< 5 %	0%	No. of documents delivered late:0
	Positive Material Identification	$\frac{\text{No. of PMI checks undertaken}}{\text{No. of PMI checks planned}}$	< 5 %	0%	No discrepancy
	Equipment delivered with NCRs	Equipment that passed inspection from the Subcontractor that is delivered to the next stage with a Non-conformance.	< 5 %	0%	Equipment delivered with NCRs:0

Quality KPI status and information (From 26/Jan/2020-25/Feb/2020)					
	Quality Indicator	Measure	Threshold	Actual	Data
KPI 04 – Quality in Fabrication, Construction & Installation	Quality and/or commissioning incidents / issues that result in either a \$1mln USD+ cost impact or a potential schedule impact greater than one-week lost production	> Include any flaw, error, non-conformance that could have been prevented > Includes any stage of manufacturing, fabrication, testing, and/or commissioning and start-up	<1	0	Quality/commissioning incidents:0
	Contractor/Subcontractor Inspection resourcing	Inspectors/planned (by discipline)	> 90 %	176.32%	No.of resource:67 No. of planned :38
	ITP witness and hold points	$\frac{\text{No. of witness \& hold points missed} \times 100}{\text{No. of witness \& hold points scheduled}}$	< 5 %	0%	No. of witness & hold points missed:0 No. of witness & hold points scheduled:229
	Site Queries	$\frac{\text{No. cleared in month} \times 100}{\text{Total No. outstanding}}$	> 90 %	100%	No. cleared in month:11 Total No. Outstanding:11
	NCRs	No. open/No. raised Open > 30 days > 60 days > 90 days	< 10 %		
	No. Repeat NCRs	No. Repeated NCRs in month/ Total No. NCRs	<10%	0%	No. Repeated NCRs in month:0
	No. Quality Observations (near-miss/defect prevention)	No. Quality Observations (near-miss/defect prevention) in month	N/A	3	No. Quality Observations:3
	Weld repair rate For 100% NDE specifically to RT (or PAUT)	$\frac{\text{No of welds rejected in week} \times 100}{\text{Total No of welds in week}}$	< 3% for RT < 5% for PAUT	0%	No of welds rejected:0 Total No of welds:67
	Preservation	$\frac{\text{No of Preservation activities Planned/Actual}}$	> 90 %	100%	No of Preservation activities : 3
	Hand-over documentation	$\frac{\text{No. of documents delivered} \times 100}{\text{No required By Contractor/if required}}$	> 95 %	100%	Documentation delivered by daily basis, all submit on time, no delay