# FMP, LLC Fluor Marine Propulsion

Laboratory Procurement Quality Assurance Requirements

# LABORATORY PROCUREMENT QUALITY ASSURANCE REQUIREMENTS

This document establishes quality assurance (QA) controls applicable to FMP, LLC (Buyer) purchase orders (POs). The Supplier is responsible for complying with the clauses of this document which are specifically invoked by the PO. These requirements may be in addition to other QA controls included in drawings, technical ordering requirements, etc., identified elsewhere in the PO. In the event there is a conflict between the QA clauses invoked in the order, and the other QA controls which may be included in the PO, the "Order of Precedence" article of the General Provisions shall apply.

# **QA Clause 1 - Independent Inspection Function**

Final acceptance inspections or tests to verify product acceptability shall be performed by personnel other than those who produced the characteristics under review. The Supplier shall perform or have performed all of the inspections and tests necessary to substantiate product conformance with the applicable drawings, specifications, and PO requirements for all items supplied as part of this order, and for all characteristics of those items. Characteristics include any dimensional, visual, functional, mechanical, electrical, chemical, physical, or material feature or property of the products. The results of inspections shall be submitted for Buyer information.

# **QA Clause 2 - Inspection Point Plan**

An Inspection Point Plan (which may be included as part of a process outline, manufacturing, or fabrication procedure) which the Supplier and their lower-tier suppliers will follow to ensure the PO requirements will be met, shall be submitted to the Buyer for approval prior to start of manufacture or fabrication. The Inspection Point Plan shall reference drawings and other documents (including applicable revisions) used to prepare the plan and shall cover all operations from starting material through final preparation for shipment or release, including applicable lower-tier Suppliers' inspections.

Partial Inspection Point Plan submittals are authorized provided continuity of the total Inspection Point Plan is preserved through explicit identification (tie-in) on subsequent submittals. Each inspection operation identified in the Inspection Point Plan shall indicate the stage of manufacture or fabrication where the inspection operation is to be performed. All inspections which are final acceptance inspections in preparation for shipment shall be indicated by a symbol or other appropriate method.

After receipt of the Inspection Point Plan and within 10 business days, the Buyer will provide the Supplier with written communication regarding the additional inspections and tests that the Buyer plans to perform during the manufacturing/fabrication process; or the inspections and tests performed by the Supplier (or the Supplier's lower-tier supplier[s]) that the Buyer intends to witness. These hold points may not be bypassed by the Supplier without written Buyer authorization. When requested by the Buyer, the Supplier shall arrange for and accompany the Buyer's representative(s) to the Supplier's involved lower-tier suppliers' facilities.

# **QA Clause 3 - Special Processes Quality Plan**

A Special Process Quality Plan shall be established by the Supplier to define the specific actions that will be taken to meet the quality requirements related to special processes (e.g., welding, brazing, plating, cleanliness, detrimental material controls, heat treating, hard facing, nondestructive testing [NDT], electric discharge machining, electric chemical machining) invoked by the PO. The plan shall be submitted to the Buyer for approval prior to the start of manufacturing or fabrication and shall include, as a minimum, the following:

- If applicable, identification of product or services to be obtained from a lower-tier supplier and the identification of the lower-tier supplier.
- A description of the inspections and tests that will be performed to control and evaluate the special processes required by the PO.
- A detailed summary of the Supplier's personnel, and their procedure qualifications, to ensure compliance with the applicable codes, specifications, and standards invoked by the PO.

# **QA Clause 4 - Lower-Tier Suppliers**

The Supplier is responsible for the performance of their lower-tier suppliers and shall maintain a system to ensure that all purchased materials, equipment, and services conform to the Buyer's PO requirements, including:

- Selection of qualified (in accordance with the Supplier's quality management system requirements) suppliers
- Pass down of the Buyer's PO requirements
- Quality surveillance process and product verification of procured items and services, including a detailed review of all material test reports, inspection and test data, and personnel and procedure qualification documentation received from all lower-tier suppliers (including foreign suppliers) to ensure that all applicable codes, specifications, and standards invoked in the Buyer's PO requirements have been fully met for the products and services provided by the lower-tier supplier.
- Information feedback and correction of non-conformances

The Supplier shall submit their plan for controlling their lower-tier suppliers for the Buyer's information 10 business days prior to implementing the plan.

## QA Clause 5 – Certified Material Test Reports

Certified Material Test Reports (CMTRs) verifying conformance with PO material specifications shall be obtained and submitted by the Supplier to the Buyer. These CMTRs shall report actual quantitative chemical and mechanical properties test data, as applicable, and shall also accompany the shipment of deliverables under the Buyer's PO. The CMTR shall consist of a legible copy of the certificate as supplied by the testing facility, or a statement that the results were taken from the original test report furnished by the test facility. Copies of the CMTRs supplied by the Supplier shall identify the PO number, the drawing and item number (if applicable), and the heat number of the material that was used in the fabrication of the product.

# QA Clause 6 – Raw Material and Product Traceability

The Supplier shall be capable of finding all objective evidence for a particular piece of material, given only the marking on that piece of material. Heat numbers, or other identity control numbers, shall be maintained on parts to prove traceability to parent material inspection and test records. Identification control of a product, part, or material shall be maintained throughout all stages of receipt, storage, manufacture, assembly, and delivery. If not required for all parts of the order, applicability to specific parts will be indicated in the order. Bagging/tagging, or an alternate equivalent method of identification, is permitted for use on parts too small to be marked individually. Markings shall not interfere with the functional or quality aspects of the product.

# QA Clause 7 - Calibration and Control of Measuring and Test Equipment

The Supplier shall utilize the required gaging, measuring, and test equipment, and shall regularly calibrate inspection equipment using required standards traceable to the National Institute of Standards and Technology or other nationally recognized standards, as identified in the PO or technical specification. Standards established by the Supplier for calibrating the measuring and test equipment used in controlling product quality shall have the capabilities for accuracy, stability, and range for intended use. Records of such calibrations shall be maintained by the Supplier. If the Buyer's representative has reason to question the accuracy of the calibration, a recalibration of the questionable equipment may be required and witnessed. The Buyer will issue a Supplier Corrective Action Request (SCAR) to document the request for recalibration. When measurement and test equipment is found to be out-of-tolerance during re-calibration, the Supplier shall investigate prior use of the equipment to determine the validity of prior inspections or tests. The Supplier is required to formally document, for Buyer approval, the results of their investigation in the response to the SCAR.

# QA Clause 8 – Discrimination of Measurement Equipment and Interpretation of Limits

Line-graduated or digital-readout measuring and testing devices shall be graduated to intervals of 10% or less of the specified product tolerance for the characteristic being measured (10-to-1 rule).

## **QA Clause 9 - Sampling Inspection**

If the Supplier proposes to use sampling inspection procedures in lieu of 100% inspection for acceptance, the Supplier shall submit their proposed sampling procedures and obtain written Buyer approval prior to use. Submitted sampling plans shall be based on sampling tables specified in nationally recognized specifications or standards.

# QA Clause 10 - Supplier Maintenance and Retention of Inspection and Test Records

The Supplier shall maintain all maintenance, inspection, and test records that substantiate product conformance to the requirements of the PO. The records shall be protected from loss, deterioration, or damage. Unless otherwise specified by the Laboratory in the PO, these documents shall be retained for a period of three years after final payment.

# QA Clause 11 - Recording and Reporting Inspection and Test Data

- A. All inspection and test data required by the order shall be legibly recorded on inspection data sheets or sketches and shall be traceable to the order item with information such as:
  - PO number
  - Drawing number and revision (if applicable)
  - Nomenclature of part, heat numbers and part serial numbers (if applicable)
  - Identification of nonconforming conditions, referencing the Buyer's approval document
  - Date of inspection/test
  - Signature of inspector who performed the inspection

Attachment III provides a template for recording inspection and test data.

- B. Completed inspection data sheets shall be available for review by the Buyer representative or Government Quality Assurance Representative (QAR) if such on-site inspection is required by the PO. Hard copies of the recorded data, as described below, shall be provided to the Buyer at completion of all PO requirements.
  - All dimensions designated by a delta (Δ) symbol on the drawing or identified in the Technical Specification invoked by the PO, and recorded as <u>actual</u> values.
  - All three or more place decimal dimensions shown on the face of the drawing shall be measured and recorded as actual values for each dimension and for each occurrence designated, except for thread dimensions checked with go/no-go thread gages.

- All geometric characteristics (concentricity, parallelism, perpendicularity, etc.) shown on the
  face of the drawing and/or required by the PO, with a feature control value less than or equal
  to 0.010", regardless of the feature modifier, shall be measured and recorded as <u>actual</u>
  values.
- All surface finishes shown on the face of the drawing and/or required by the PO, and whose surface finish tolerances are <u>more</u> restrictive than the standard drawing tolerances, shall be measured and recorded as a maximum value.
- All angles with a tolerance of <u>±</u> 30 minutes or less shall be measured and recorded as actual values.
- Threads may be checked with go/no-go thread gages and recorded as "OK to Gage", if the part meets the limit. The major diameter of external threads and minor diameter of internal threads shall be measured and recorded. When threads are measured using the wire method, measure and record the size of wire used, the major diameter, the pitch diameter, and the minor diameter. In addition, the flank angles and lead shall be measured and recorded when the wire method is used.
- Any characteristic not included in Items 1-6 above, including two-place decimal dimensions, shall be listed on the data sheet, and if within tolerance, may be recorded as "OK".
- Evidence of performance and acceptability of the results of all test requirements shall be recorded, including nondestructive testing and material qualification compliance. Where the involved test yields actual test values, they shall be recorded.
- Inspection results which are not in accordance with PO requirements shall be clearly
  indicated by either a symbol (e.g., asterisk) adjacent to the recorded result or color coding of
  the out-of-tolerance data. If the discrepant condition was accepted via a Degradation of
  Specification Requirements (DSR) Form, the DSR number shall be referenced on the data
  sheet.
- The ambient air temperature at the time the dimensional inspection was performed shall be entered on every page of the data sheet(s).
- A unique identification number of the measuring device(s) used to obtain the measurement shall be entered on every page of the data sheet(s).
- All data and information entered on data sheets shall be entered in ink and shall be clear
  and legible with no write-overs, tape-overs, or obliterations of any type. Erasures are not
  permitted. Errors requiring correction shall be lined out with a single line and the corrected
  data entered adjacent to the lined out information. Each change or addition to data sheets
  shall be initialed and dated.

Attachment III provides a template for recording inspection and test data.

C. When "as-built" data is required by the drawings ( $\Delta$ ), technical specifications, or elsewhere in the PO, <u>actual</u> measured values of such dimensions and/or geometric characteristics shall be recorded. Pass/fail is not an acceptable inspection result.

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**EXCEPTIONS:** Acceptability of fractional dimensions and geometric characteristics such as

parallelism, perpendicularity, run out, etc. may be reported by notations such

as [within .xx"].

Attachment III provides a template for recording inspection and test data.

## **QA Clause 12 - Personnel and Procedure Qualifications**

The Supplier shall submit documentation which states that all testing, welding, nondestructive evaluations etc., including that performed by lower-tier suppliers, will be performed in accordance with procedures that meet the requirements of applicable specifications and/or standards invoked by the PO, and by personnel qualified in accordance with the applicable specifications and/or standards. The documentation shall be submitted for Buyer approval prior to initiating work and as a minimum includes:

- The applicable specifications and/or standards, including revision dates, required by the order.
- The testing organization's name and address, if other than the Supplier.

# QA Clause 13 – Audits, Surveillances, and Buyer Access to Supplier's Facilities

The Buyer reserves the right to perform on-site surveillances and/or audits of the Supplier and the Supplier's lower-tier suppliers systems, facilities, personnel, equipment, and documentation as deemed necessary to ensure conformance with the quality assurance, technical, and contractual requirements of the latest PO issue in effect unless otherwise noted. The Buyer will provide advance notice of any audits and surveillances.

# **QA Clause 14 – Buyer Inspections and Release for Shipment**

- A. Items on this PO are subject to Mandatory Hold Points and/or Source Inspection by a Buyer Representative. The Supplier shall provide to the Buyer, on a best estimate basis, a minimum of three working days advance written notice of when the items will be ready for witness, inspection, or review.
- B. When Source Inspection or other inspections are required, work shall not proceed beyond the inspection point, or shipment shall not be made, until the Buyer has provided written authorization to proceed. This authorization may be provided verbally at the time of the inspection, and will subsequently be documented in writing by the Buyer.

## QA Clause 15 - Supplier Final Inspection

Immediately, prior to packaging and packing, the Supplier shall visually inspect 100% of completed components for cleanliness, quality of plating, identification, evidence of handling damage or surface discrepancies. The Supplier shall also inspect to provide assurance that the component is compatible with final assembly drawing configuration concerning orientation of parts, correct quantity of parts, completeness of assembly, correctness of installation of locking devices to the extent practicable without requiring disassembly, and for inclusion of correct quantities of associated hardware which are to be shipped unassembled, if applicable. Documentation of the Final Inspection shall accompany the shipment.

# **QA Clause 16 - Certifications (General)**

Supplier Certifications are required as specified in the PO. All certifications shall contain the following information and shall be submitted to the Buyer on the Supplier's letterhead. An example Certification template is provided in Attachment I.

- A. Supplier's name and address
- B. PO number (also see C. 1. d.)
- C. A <u>listing of the following</u> to which the certification applies, to include:
  - 1.
- a. PO item numbers
- b. Description of PO items
- c. Quantity of each item in the shipment
- d. Amendment change number(s) to the PO applicable to the items being shipped
- 2.
- a. Specifications and applicable revision number
- b. Drawing numbers and applicable revision number
- c. Catalog numbers and applicable revision number
- d. Material specification numbers and applicable revision number
- 3.
- a. Buyer approved Degradation of Specification Requirements (DSRs) (when applicable)
- b. Repair Authorization Requests (RARs) (when applicable)
- c. Request for Engineering Changes (RECs) (when applicable)
- 4. A statement by the Supplier certifying that the products and/or services conform with PO requirements; e.g., "(Supplier's name)" hereby certifies that the products and/or services described herein meet the requirements of the PO, with the exception of approved RECs, RARs, and/or DSRs".
- D. Date, signature, and title of the Supplier's authorized representative

## **QA Clause 17 - Certificate of Conformance**

The Supplier shall certify conformance to all PO requirements via a Certificate of Conformance. This certification shall be based on a review by the Supplier, including a sampling of manufacturing and inspection records. An example Certificate of Conformance template is provided in Attachment II.

In addition, when the Supplier has made use of a lower-tier supplier (including foreign suppliers) for any portion of the work required by the PO, the Supplier's Certificate of Conformance shall include a statement identifying that the Supplier has completed a review of all material test reports, inspection and test data, and personnel and procedure qualification documentation received from the lower-tier supplier for compliance to all applicable codes, specifications, and standards invoked in the Buyer's PO requirements.

When requested in writing by the Buyer, the Supplier shall furnish objective quality evidence (OQE) substantiating the Supplier's Certificate of Conformance.

# QA Clause 18 - Certificate of Usage of Government-Furnished Material

When material is furnished by the Government (the Buyer), the Supplier shall certify that there was no substitution of Government supplied materials in completing the PO items and that the materials were used as required by the PO. Material heat numbers (if applicable) shall be included in the Supplier's Certification of Usage of Government-Furnished Material (GFM).

# <u>QA Clause 19 - Certificate of Returned Excess Government-Furnished</u> <u>Material</u>

The Supplier shall certify that excess material originally furnished by the Government (the Buyer) for use under the PO has not been changed other than dimensionally, unless specifically approved by the Buyer, and is being returned to the Buyer. The certificate is only required to be submitted after delivery of all PO deliverables and shall include the information below:

- Quantity, description, and Buyer identification control or heat number for the returned material.
- If changed other than physically (i.e., dimensionally), a description of the process (heat treatment, etc.) used, any generated data associated with the process, and reference to the Buyer document(s) which approved the process.

# QA Clause 20 - Transmittal of Certifications, Inspection, or Test Data to the Buyer

Copies of each document required by the PO shall be supplied to the Buyer in accordance with the requirements of the PO.

- On Source Inspections POs, one copy shall be provided to the inspector.
- One copy of all documentation shall accompany the shipment.
- One copy shall be mailed, concurrent with the product shipment, to the Buyer's Contract Administrator, unless specified otherwise in the PO.

# **QA Clause 21 – Material Release**

The Supplier shall request the Buyer's approval for the release to procure any required long-lead time materials.

# QA Clause 22 - Generic Alloy Testing

The Supplier shall perform generic alloy testing of metallic starting material. The generic identity test shall be performed on all metallic material procured by, or supplied to the Supplier, under this PO, unless otherwise noted. The generic test shall not damage the material. For material in an assembly procured by, or supplied to the Supplier, generic tests are not required for those parts that are not accessible without disassembly.

# QA Clause 23 - Magnet Check

By using a known piece of carbon steel as a standard for comparison, the Supplier shall conduct and record the results of a magnet check of all stainless steel (300 series), nickel-chromium, iron alloy (Inconel) and Zircaloy materials procured by the Supplier to support the requirements of this PO to ensure that carbon steel has not been inadvertently used for the fabrication of the products. Results of this inspection shall be identified as "magnetic" or "non-magnetic" on the Inspection Data Sheet or Certification report.

# QA Clause 24 – Acceptance and Nondestructive Testing (NDT) <u>Documentation</u>

The following requirements apply when specific acceptance and nondestructive testing is specified in the PO.

#### A. Radiographic Documentation

Radiographic test procedures shall be submitted to the Buyer when procedure approval is required by the PO. Radiographic test procedures shall meet the requirements of the radiographic test specification and shall be detailed to the extent that the Buyer is able to determine the adequacy and extent of the testing to be performed.

All radiographic films are subject to final review and approval by the Buyer and shall be accompanied by the Supplier's completed radiographic review form, if required by the PO. The record shall identify the specific procedure employed (including procedure number, date and/or revision number) and the specific Buyer approval document when applicable.

The Buyer reserves the right to review the film on its premises or other such places as may be designated in the PO. In such cases, shipment of films shall be requested of the Supplier in writing by the Buyer. Submittal of film and radiographic review form shall be by registered mail. The Buyer will assume responsibility for the films to the extent of liability for re-radiography, until they are returned to the Supplier. A copy of the radiographic inspection record and radiographic technique sheet shall be submitted with the Supplier's data package to the Buyer, when applicable. The radiographic inspection records and radiographic technique sheets shall include all the information that is required in the radiography testing specification.

#### B. Ultrasonic Test Documentation

Ultrasonic test procedures shall be submitted to the Buyer when procedure approval is required by the PO. Ultrasonic test procedures shall meet the requirements of the ultrasonic test specification and shall be detailed to the extent that the Buyer is able to determine the adequacy and extent of the testing to be performed. When additional information such as position charts, sketches, etc., is pertinent, this information shall be submitted with the procedures. Objective evidence of ultrasonic test performance (tapes, traces, charts, etc.) shall be retained by the Supplier, and shall be made available for review by the Buyer upon request. Documentation of approvals and qualification shall be maintained in the Supplier's records. If there are no documentation requirements specified in the ultrasonic test specification, the test report shall, as a minimum, identify the Supplier's ultrasonic test procedure employed (including procedure number, date, and/or revision number), personnel performing the inspection, and the results of the ultrasonic test including accept/reject disposition and description of indications by size and number, and be submitted with the Supplier's data package to the Buyer, when applicable.

#### C. Liquid Penetrant Test Documentation

Liquid penetrant test procedures shall be submitted to the Buyer when procedure approval is required by the PO. Liquid penetrant test procedures shall meet the requirements of the liquid penetrant test specification and shall be detailed to the extent that the Buyer is able to determine the adequacy and extent of the testing to be performed.

The Supplier shall record the results of liquid penetrant inspections if required by the PO. The records shall clearly specify the applicable specification, standard, and acceptance criteria identified in the PO. Documentation of approvals and qualification shall be maintained in the Supplier's records. If there are no documentation requirements specified in the liquid penetrant test specification, the test report shall, as a minimum, identify the Supplier's penetrant procedure employed (including procedure number, date, and/or revision number), the weld layers inspected, personnel performing the inspection, and the results of the penetrant test including accept/reject

disposition and description of indications by size and number, and be submitted with the Supplier's data package to the Buyer, when applicable.

#### D. Magnetic Particle Test Documentation

Magnetic particle test procedures shall be submitted to the Buyer when procedure approval is required by the PO. Magnetic particle test procedures shall meet the requirements of the magnetic particle test specification and shall be detailed to the extent that the Buyer is able to determine the adequacy and extent of the testing to be performed. When additional information such as grid patterns, is pertinent, it shall be submitted with the procedures.

The Supplier shall record the results of magnetic particle inspections, if required by the PO. The records shall clearly specify the applicable specification, standard, and acceptance criteria identified in the PO. Documentation of approvals and qualification shall be maintained in the Supplier's records. If there are no documentation requirements specified in the magnetic particle test specification, the test report shall, as a minimum, identify the Supplier's magnetic particle procedure employed (including procedure number, date, and/or revision number), the weld layers inspected, personnel performing the inspection, and the results of the magnetic particle test including accept/reject disposition and description of indications by size and number, and be submitted with the Supplier's data package to the Buyer, when applicable.

#### E. Visual Test Documentation

Visual test procedures shall be submitted to the Buyer when procedure approval is required by the PO. Visual test procedures shall meet the requirements of the visual test specification and shall be detailed to the extent that the Buyer is able to determine the adequacy and extent of the testing to be performed.

The Supplier shall record the results of visual inspections, if required by the PO. The records shall clearly specify the applicable specification, standard, and acceptance criteria identified in the PO. Documentation of approvals and qualification shall be maintained in the Supplier's records. If there are no documentation requirements specified in the visual test specification, the test report shall, as a minimum, identify the Supplier's visual inspection procedure employed (including procedure number, date, and/or revision number), the weld layers inspected, personnel performing the inspection, and the results of the visual inspection including accept/reject disposition and description of indications by size and number, and be submitted with the Supplier's data package to the Buyer, when applicable.

#### F. Other Acceptance Testing (e.g. Electrical, Hydrostatic, Helium Leak, etc.) Documentation

Test procedures shall be submitted to the Buyer when procedure approval is required by the PO. The test procedures shall meet the requirements of the test specification and shall be detailed to the extent that the Buyer is able to determine the adequacy and extent of the testing to be performed.

Test reports are required for specific acceptance testing specified in the PO shall be as issued by the organization performing the tests. The Supplier shall record the results of the acceptance testing. The records shall clearly specify the applicable specification, standard, and acceptance criteria identified in the PO. Documentation of approvals and qualification shall be maintained in the Supplier's records. If there are no documentation requirements specified in the test specification, the test report shall, as a minimum, identify the Supplier's testing procedure employed (including procedure number, date, and/or revision number), personnel performing the

tests, and the quantitative or qualitative test results for each test of each unit of each order item, and be submitted with the Supplier's data package to the Buyer, when applicable.

# **QA Clause 25 - Government Source Inspection (GSI)**

Upon receipt of this order, the Supplier shall notify the Government Quality Assurance Representative (QAR) who normally services the facility, so that GSI may be performed. The Supplier shall include this requirement in all lower-tier supplier POs.

## Facilities, Access and Information Required

Facilities to be Furnished to the Government QAR

When requested by the Government QAR, the Supplier shall provide adequate office supplies, office space, plain office furniture, and storage cabinets for drawings and documents, which meet applicable security requirements for the Government QAR. The Supplier shall present products for Government inspection in such a manner as to afford inspection conditions acceptable to the QAR.

2. Access to the Supplier's Facility

The Government QAR may be assigned as itinerant or resident at the Supplier's facility. He/she shall have immediate and free access at all times to all parts of the Supplier's facilities utilized in the performance of work on the PO, and shall be permitted to examine and inspect the products, witness the processes of manufacture, and perform quality program and inspection system audits. The Government QAR assigned to the Supplier's facility is there on duty in the interest of this PO only in order to protect the interest of the Government. He/she is under no obligation to waive compensation for any injury to person or property sustained in the performance of his/her duties, may refuse to sign a visitor's register or pass which includes such a waiver, or may delete the waiver clause before affixing his/her signature.

3. Information Required by the Government QAR

The Supplier shall furnish or make available to the Government QAR all information that he/she considers pertinent to the proper inspection of the supplies or services required by the PO. This includes copies of contracts, subcontracts, or internal orders on other supplier's facilities, schedules, manufacturing processes, QA Program, or any other pertinent data.

#### **Government Notification Requirements**

- Notification points are steps in the Supplier's manufacturing and/or inspection sequence wherein the Government QAR shall be notified. These steps are identified to the Supplier by the Government QAR who may require the Supplier to submit or confirm notifications in writing. Notifications shall not be bypassed by the Supplier unless authorization has been obtained from the Government QAR.
- 2. Unless otherwise agreed to in writing, the Supplier shall notify the Government QAR at least two working days in advance of readiness of inspections and tests designated by the Government QAR as requiring witnessing or inspecting.
- 3. If any portion of the PO involving a notification point is to be performed by a lower-tier supplier, the Supplier shall notify the Government QAR prior to placing the PO with the supplier, to arrange for probable Source Inspection at the lower-tier supplier's facility.

#### **Corrective Action Requests**

The Supplier shall reply in writing, within the time period requested, to any corrective action requests resulting from Quality Deficiency Reports (QDRs) issued by the Government QAR. The reply shall state the root cause(s) of the deficiency, effect on other components or parts, immediate corrective action(s) taken or planned, action(s) taken to prevent recurrence, as well as the methods the Supplier plans to use to determine the effectiveness of the corrective actions.

#### **Government Authorization to Ship Supplies**

Supplies shall not be released for shipment until the Government QAR has signed a Material Inspection and Receiving Report (DD Form 250), or otherwise provides a release by signing and dating the packing list or other Supplier shipping papers. At the time of each shipment under a contract or subcontract which specifies Government Inspection of supplies or services at source, the Supplier shall prepare and furnish to the Government QAR, a Material Inspection and Receiving Report (DD Form 250) or other authorized inspection report form. Inspection report forms will be furnished to the Supplier upon request. Supplies shipped without proper authority, or unaccompanied by an inspection report may be returned to the Supplier at their expense for inspection, or inspection may be conducted at destination by the Government, and the cost of inspection may be charged to the Supplier.

When the Government QAR requires a DD Form 250 for shipments made under the order, the Supplier may obtain assistance in completing the forms from either the Government QAR or the Buyer.

# QA Clause 26 – Calibration of Government Furnished Equipment (GFE)

- A. Calibration of measurement and test equipment (M&TE) provided by the Buyer for recalibration must comply with ISO-10012-1:1992(E), ISO-17025, ANSI/NCSL-Z540, or MIL-STD-45662A requirements. The Supplier's certification must identify the calibration specification that was used to calibrate the M&TE. In addition, the Supplier's calibration program must make use of appropriate standards traceable to the National Institute of Standards and Technology or another nationally recognized standard and a statement of such traceability shall be included in the Supplier's calibration certifications. Unless otherwise specified in the PO, the Supplier's calibration certifications must include the "as-found" calibration measurements for the M&TE being calibrated along with the temperature and humidity readings at the time of the calibration.
- B. Calibration certifications for new M&TE being procured by the Buyer shall conform to Original Equipment Manufacturer (OEM) calibration specifications.

# **QA Clause 27 – Control of Nonconforming Material and Products**

The Supplier shall establish and maintain an effective and positive system for controlling nonconforming material or products, including procedures for the identification, segregation, presentation and disposition of reworked or repaired materials or products. Repair of nonconforming materials and products shall be in accordance with documented procedures (e.g., RAR) approved by the Buyer. The acceptance of nonconforming materials or products is the prerogative of and shall be as prescribed by the Buyer. All nonconforming materials and products shall be positively identified to prevent use, shipment and intermingling with conforming materials and products. Designated holding areas shall be used by the Supplier to segregate nonconforming materials and products.

A "repair" of nonconforming material or product is defined as a procedure which reduces but does not completely eliminate a nonconformance. The repair procedure must be approved for use by the Buyer. The purpose of repair is to reduce the effect of the nonconformance. Proposed repairs approved by the Buyer are authorized for use on a one-time basis only.

"Rework" of a nonconforming material or product is defined as a procedure that will completely eliminate the nonconformance and result in a characteristic that conforms completely to the drawings, specifications, or contract requirements.

### **QA Clause 28 – Document Control**

The Supplier shall establish and maintain an effective document control system (Configuration Management System) to ensure that the latest applicable drawings, specifications, procedures, processes, and instructions required by the PO, as well as authorized changes thereto, are used for all work under this PO.

# **QA Clause 29 – Supplier Corrective Action Requests**

The Supplier must have an effective program for the investigation of quality system or product deficiencies. The program must include utilization of a disciplined problem solving method for determining the root cause and effective corrective actions that preclude recurrence of deficiencies detected by the Supplier or Buyer. The Buyer may forward a Supplier Corrective Action Request (SCAR). The SCAR will request a root cause and corrective actions response from the Supplier when the Buyer discovers discrepancies for which the Supplier is responsible. The Supplier shall respond in writing to the SCAR. The Supplier's reply shall state the root cause(s) of the deficiency, the effect on other components or parts required by the PO, the immediate corrective action(s) taken or planned, action(s) taken to prevent recurrence, and methods the Supplier plans to use to determine the effectiveness of the corrective action(s). Failure to respond to requests for corrective action or subsequent information in a timely manner may result in an additional nonconformance against the Supplier's corrective action system.

Form LPQAR October 2018 Attachment I

# YOUR COMPANY NAME

Your Company Address City, State Zip Code

	nt No.:					
		APPLICABLE DOCUI	MENTS			
Specifications No.	Rev.	No.	Rev.	No.	Rev.	
<u>Drawings</u> No.	Rev.	No.	Rev.	No.	Rev.	
Catalog Nos. No.	Rev.	No.	Rev.	No.	Rev.	
Material Specifications No.	Rev.	No.	Rev.	No.	Rev.	
		ON OF SPECIFICATION R		ENTS (DSRs) as Applicable ARs) as Applicable		
APPROVE	D REQUI	EST FOR ENGINEERING C	HANGES (	RECs) as Applicable		
Your Company Name hereby certifies that the products and/or services described herein meet the requirements of the purchase order, with the exception of approved Request for Engineering Changes, approved Degradation of Specification Requirements, and approved Repair Authorization Requests listed above.						
Authorized Signatur	<u>е</u>	Title		Date		

CERTIFICATION

Form LPQAR October 2018 Attachment II

# YOUR COMPANY NAME

Your Company Address City, State Zip Code

CERTIFICATE OF CONFORMANCE  Purchase Order No.:  Line Item No(s).:  Quantity:  Your Company Name, based upon a review of purchase order requirements, including a sampling of manufacturing and inspection records, hereby certifies that the products and/or services described herein are in conformance with all requirements of the purchase order.  {NOTE TO SUPPLIER: If applicable, add the following. Otherwise, delete this paragraph:} A review of all material test reports, inspection and test data, and personnel and procedure qualification documentation received from lower-tier supplier(s) (including foreign suppliers) for compliance to all applicable codes, specifications and standards invoked in the Buyer's purchase order requirements has been completed.		
Purchase Order No.:		
Line Item No(s).:		
Quantity:		
and inspection records, hereby certifies tha		
A review of all material test reports, inspect documentation received from lower-tier sup	ion and test data, and personnel a plier(s) (including foreign suppliers	and procedure qualification s) for compliance to all applicable
Objective evidence substantiating this Certi	ficate of Conformance is available	to the Buyer upon request.
Authorized Signature	Title	Date

# **INSPECTION REPORT DATA SHEET**

Page	of	

Part Description								Drawir	ng or Spec. No		Rev. No.	Grou	o or Item No.
Purchase Order (PO) No.	PO Amendm	PO Amendment No. PO Line It					O Line Ite	Item No(s).					
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Notes & Comments: List all applic	able ARs, RE	Cs, DSRs,	etc.										
NOTE: WHEN THIS DATA SHEET IS COMPLETED, THE UNUSED BLANKS ON THIS PAGE SHALL BE CONSIDERED N/A.													

# **INSPECTION REPORT DATA SHEET**

**CONTINUATION SHEET** 

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Material Heat No.							
Component Identification (P/N	Actual Dimensions (If out of Tolerance, Place X in Box to Right of Dimension)						
Component Identification (P/N S/N) and/or Drawing Dimensions and Tolerances							Tool Symbol(s
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