

# **SUPPLIER QUALITY REQUIREMENTS AND SUPPLEMENTAL PURCHASE ORDER CONDITIONS**

## **Preface**

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Holders of this manual shall ensure they are working to the appropriate revision. Suppliers shall discard superseded versions when no longer required for open orders, or upon receipt of an updated manual. Internal users shall discard superseded versions upon receipt of an updated manual.

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## **GENERAL QUALITY SYSTEM REQUIREMENTS (QSR) – 001**

### **1. SCOPE**

This specification requires the establishment of a quality program by the supplier to assure compliance with contractual requirements set forth by Vibro-Meter SA. It is based upon AS9100, and other requirements that are flowed down by the nature of the product and/or process.

If the supplier has an AS9100 approved quality system and is listed in the OASIS database then it is assumed that they are automatically compliant with the quality system requirements defined in this section.

### **2. APPLICABLE DOCUMENTS**

AS9100 Quality Management Systems - Aerospace - Requirements Document

ISO10012-1 International Standards Organization / Quality Assurance Requirements for Measuring and Test Equipment

### **3. APPLICABILITY**

This specification is applicable when referenced on a Purchase Order or Contract from Vibro-Meter SA.

### **4. QUALITY MANAGEMENT**

#### **4.1. GENERAL REQUIREMENTS**

- The supplier shall establish, document, implement and maintain a quality management system and continually improve its effectiveness in accordance with the requirements described in QSR-001.
- Where the supplier chooses to outsource any process that affects product conformity with requirements the supplier shall ensure control over such processes.

#### **4.2. DOCUMENTATION REQUIREMENTS**

##### **4.2.1 General**

The supplier's quality management system shall include the following documentation.

- Documented Statements of a Quality Policy and Quality Objectives
- A Quality Manual as defined in §4.2.2
- Documented procedures required by QSR – 001
- Documents needed by the supplier to ensure the effective planning, operation and control of its processes
- Records required by QSR – 001

The supplier shall ensure that its employees have access to quality management system documentation and are aware of relevant procedures. Vibro-Meter SA and/or

its customers and/or regulatory authority's representatives shall have access to the quality management system documentation upon request.

#### 4.2.2 Quality Manual

The supplier shall establish and maintain a quality manual that includes

- a) The scope of the quality management system
- b) The documented procedures established for the quality management system, or reference to them
- c) A description of the interaction between the processes of the quality management system

#### 4.2.3 Control of Documents

The supplier shall establish a document to define the controls needed to:

- a) approve documents for adequacy prior to issue,
- b) review and update as necessary and re-approve documents,
- c) ensure that changes and the current revision status of documents are identified,
- d) ensure that relevant versions of applicable documents are available at points of use,
- e) ensure that documents remain legible and readily identifiable,
- f) ensure that documents of external origin are identified and their distribution controlled, and
- g) prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.

The supplier shall coordinate document changes with Vibro-Meter SA in accordance with contract or regulatory requirements.

#### 4.2.4 Work Instructions

The supplier shall establish and maintain work instructions which:

Assure that all work affecting quality (including such things as purchasing, handling, machining, assembling, fabricating, processing, inspecting, testing, modifying, installing, and any other treatment of product, facilities, standards or equipment from the ordering of materials to the dispatch of shipments) be prescribed in clear and complete documented instructions of a type appropriate to the circumstances. Work instructions shall:

- Provide criteria for properly trained personnel to perform work functions.
- Be compatible with acceptable criteria for workmanship.
- Serve as media for supervising, inspecting, and managing work.
- Provide for and monitor the preparation and maintenance of work instructions.

#### 4.2.5 Control of Records

The Supplier shall establish and maintain records to provide evidence of conformity to requirements and of the effective operation of the quality management system.

A documented procedure shall be established to define the controls needed for the identification, storage, protection, retrieval, retention time and disposition of records.

Records shall remain legible, readily identifiable and retrievable. Records shall be available for review by Vibro-Meter SA, its customers and/or regulatory authorities upon request and shall be retained in a safe, accessible location protected from environmental damage (Fire, Flood, Dust, etc...) for a period of 10 years after date of delivery or as defined in the contract.

The suppliers records associated with the manufacture of serialized or lot controlled articles will provide for continued traceability of serial numbers or lot number identification through all phases of manufacture, commencing with the raw material and continuing through final acceptance of the end item.

Records held for the required retention period shall not be destroyed without Vibro-Meters' written approval.

#### 4.3. Configuration Management

The organization shall establish, document and maintain a configuration management process appropriate to the product.

**NOTE:** Guidance on configuration management is given in ISO 10007.

### 5. MANAGEMENT RESPONSIBILITY

#### 5.1. Management Commitment

The supplier shall provide evidence of its commitment to the development and implementation of the quality management system and continually improving its effectiveness by:

- a) communicating within its organization the importance of meeting customer as well as statutory and regulatory requirements,
- b) establishing the quality policy,
- c) ensuring that quality objectives are established,
- d) conducting management reviews, and
- e) ensuring the availability of resources.

#### 5.2. Quality Policy

The supplier shall ensure that the quality policy

- a) is appropriate to the purpose of the organization,
- b) includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system,
- c) provides a framework for establishing and reviewing quality objectives,
- d) is communicated and understood within the organization, and

- e) is reviewed for continuing suitability.

### 5.3. Planning

Planning shall be performed in the earliest practical phase of contract performance. The supplier shall maintain procedures which:

- Identify and make timely provision for the special controls, processes, test equipment, fixtures, tooling, and technically skilled and trained personnel required to assure product quality.
- Assure the necessary research to update inspection and testing techniques, instrumentation and correlation of inspection and test results with manufacturing methods and processes.
- Assure adequate review and timely action to maintain compatibility of manufacturing, inspection, testing, and documentation.

### 5.4. Management Representative

The supplier shall appoint an employee who, irrespective of other responsibilities, shall have responsibility and authority that includes

- a) ensuring that processes needed for the quality management system are established, implemented and maintained,
- b) reporting to top management on the performance of the quality management system and any need for improvement,
- c) ensuring the promotion of awareness of customer requirements throughout the organization, and
- d) the organizational freedom to resolve matters pertaining to quality.

**NOTE:** The responsibility of a management representative can include liaison with external parties on matters relating to the quality management system.

## 6. RESOURCE MANAGEMENT

### 6.1. Human Resources

The supplier shall ensure that personnel performing work affecting product quality are competent on the basis of appropriate education, training, skills and experience by:

- a) determining the necessary competence for personnel performing work affecting product quality,
- b) providing training or taking other actions to satisfy these needs,
- c) evaluating the effectiveness of the actions taken,
- d) ensuring that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives, and
- e) maintaining appropriate records of education, training, skills and experience in accordance with §4.2.5.

## 6.2. Infrastructure

The supplier shall determine, provide and maintain the infrastructure needed to achieve conformity to product requirements. Infrastructure includes, as applicable

- a) buildings, workspace and associated utilities,
- b) process equipment (both hardware and software), and
- c) supporting services (such as transport or communication).

## 6.3. Work Environment:

The supplier shall determine and manage the work environment needed to achieve conformity to product requirements.

**NOTE:** Factors that may affect the conformity of the product include temperature, humidity, lighting, cleanliness, protection from electrostatic discharge, etc.

# 7. PRODUCT REALIZATION

## 7.1. Purchasing

The supplier shall ensure that purchased product conforms to specified purchase requirements. The type and extent of control applied to the supplier and the purchased product shall be dependent upon the effect of the purchased product on subsequent product realization or the final product.

The supplier shall be responsible for the quality of all products purchased from suppliers, including customer-designated sources.

The organization shall evaluate and select suppliers based on their ability to supply product in accordance with the organization's requirements. Criteria for selection, evaluation and re-evaluation shall be established. Records of the results of evaluations and any necessary actions arising from the evaluation shall be maintained (see §4.2.5).

The supplier shall:

- a) maintain a register of approved suppliers that includes the scope of the approval;
- b) periodically review supplier performance; records of these reviews shall be used as a basis for establishing the level of controls to be implemented;
- c) define the necessary actions to take when dealing with suppliers that do not meet requirements;
- d) ensure where required that both the organization and all suppliers use customer-approved special process sources;
- e) ensure that the function having responsibility for approving supplier quality systems has the authority to disapprove the use of sources.

### 7.1.1 Verification of Purchased Product

The supplier shall establish and implement the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements.

Purchased product shall not be used or processed until it has been verified as conforming to specified requirements unless it is released under positive recall procedure.

Where the supplier utilizes test reports to verify purchased product, the data in those reports shall be acceptable per applicable specifications. The supplier shall periodically validate test reports for raw material.

- f) marking and labelling including safety warnings;
- g) shelf life control and stock rotation;
- h) special handling for hazardous materials.

The organization shall ensure that documents required by the contract/order to accompany the product are present at delivery and are protected against loss and deterioration.

## 7.2. Production and Service Provision

### 7.2.1 Control of Production and Service Provision

The supplier shall plan and carry out production and service provision under controlled conditions. Controlled conditions shall include, as applicable

- a) the availability of information that describes the characteristics of the product,
- b) the availability of work instructions, as necessary,
- c) the use of suitable equipment,
- d) the availability and use of monitoring and measuring devices,
- e) the implementation of monitoring and measurement,
- f) the implementation of release, delivery and post-delivery activities,
- g) accountability for all product during manufacture (e.g., parts quantities, split orders, nonconforming product),
- h) evidence that all manufacturing and inspection operations have been completed as planned, or as otherwise documented and authorized,
- i) provision for the prevention, detection, and removal of foreign objects,
- j) monitoring and control of utilities and supplies such as water, compressed air, electricity and chemical products to the extent they affect product quality, and
- k) criteria for workmanship, which shall be stipulated in the clearest practical manner (e.g., written standards, representative samples or illustrations).

### 7.2.2 Production Documentation:

Production operations shall be carried out in accordance with approved data. This data shall contain as necessary

- a) drawings, parts lists, process flow charts including inspection operations, production documents (e.g., manufacturing plans, routers, work orders, process cards); and inspection documents, and
- b) a list of specific or non-specific tools and numerical control (NC) machine programs required and any specific instructions associated with their use.

### 7.2.3 Control of Production Process Changes

Persons authorized to approve changes to production processes shall be identified. The supplier shall identify and obtain acceptance of changes that require Vibro-Meter SA approval.

Changes affecting processes, production equipment, tools and programs shall be documented. Procedures shall be available to control their implementation. The results of changes to production processes shall be assessed to confirm that the desired effect has been achieved without adverse effects to product quality.

### 7.2.4 Preservation of Product

The Supplier shall preserve the conformity of product during internal processing and delivery to the intended destination. This preservation shall include identification, handling, packaging, storage and protection. Preservation shall also apply to the constituent parts of a product.

Preservation of product shall also include, where applicable in accordance with product specifications and/or applicable regulations, provisions for:

- a) cleaning;
- b) prevention, detection and removal of foreign objects;
- c) special handling for sensitive products;

### 7.2.5 Identification and Traceability

The supplier shall identify the product by suitable means throughout product realization.

The supplier shall maintain the identification of the configuration of the product in order to identify any differences between the actual configuration and the agreed configuration.

The supplier shall identify the product status with respect to monitoring and measurement requirements.

When acceptance authority media are used (e.g., stamps, electronic signatures, passwords), the organization shall establish and document controls for the media.

The organization shall control and record the unique identification of the product

### 7.3. Control Of Monitoring And Measuring Devices

The supplier shall maintain procedures which:

- Assure that the calibration of gauges or any Measuring and Testing Equipment (MT&E) meet the requirements of ISO 10012, 'Quality assurance requirements for measuring equipment', or METAS (Swiss Federal Office of Metrology)
- Assure that gauges and other MT&E necessary to verify product conformance to purchase order/contract requirements are maintained. This applies to both supplier or employee owned MT&E used for product acceptance of Vibro-Meter SA product.

#### 7.3.1 Advanced Metrology Requirements

The supplier shall maintain procedures which assure that:

- The request for proposal or purchase order/contract is reviewed to determine if any unusual precision measurements or other testing is required.
- Vibro-Meter SA is notified of the inability to perform any required precision measurements or other testing prior to completion of negotiations and signing of the purchase order/contract.

### 7.4. Final Inspection and Testing

The supplier shall maintain procedures which:

- Assure that complete items are subject to a final inspection and/or test.
- Require documented inspection procedures that include accept/reject criteria.
- Assure that all product and/or services presented to Vibro-Meter SA for acceptance conform to purchase order/contract requirements.
- Maintain inspection records and resulting documentation, and make available for review upon request.
- Assure that final testing verifies that product performance is in compliance with purchase order/contract requirements.
- Provide for documentation and follow-up of discrepancies detected at final inspection and/or testing.
- Assure reporting to designers or applicable personnel any unusual difficulties, deficiencies or conditions.
- Assure that re-inspection and/or re-set of all items that have been reworked, repaired or modified after final inspection and/or testing is performed on affected characteristics.

### 7.5. Inspection at Supplier's Facility

The supplier shall:

- Provide Vibro-Meter SA representative(s) with the necessary facilities, equipment and personnel when on site verification of purchase order/contract conformance is required.
- Allow Vibro-Meter SA Customers or Regulatory Authorities access to the suppliers facility when on site verification of purchase order/contract conformance is required.

## 8. MEASUREMENT, ANALYSIS AND IMPROVEMENT

### 8.1. Corrective Action

The supplier shall maintain procedures which:

- Take prompt action to correct assignable conditions that have resulted or could result in the submission of nonconforming product or services to Vibro-Meter SA.
- Assure that Vibro-Meter SA is informed about any nonconforming product that has been shipped by the supplier to Vibro-Meter SA within 72hrs of identifying the non-conformance.
- Extend corrective action to the performance of all suppliers.
- Are responsive to data and product provided or returned by customer/users.
- Provide for analysis of data and examination of scrapped or reworked product to determine extent and root cause(s) of non-conformance.
- Provide for analysis of trends in processes or in the performance of work to prevent product non-conformances from occurring/recurring.
- Provide for initial review of the adequacy and monitor the effectiveness of the corrective action taken as a result of the analysis.

### 8.2. Inspection Documentation

Inspection Documentation: Measurement requirements for product or service acceptance shall be documented. This documentation may be part of the production documentation, but shall include

- a) criteria for acceptance and/or rejection,
- b) where in the sequence measurement and testing operations are performed,
- c) a record of the measurement results, and
- d) type of measurement instruments required and any specific instructions associated with their use.

Test records shall show actual test results data when required by specification or acceptance test plan. Where required to demonstrate product qualification the organization shall ensure that records provide evidence that the product meets the defined requirements.

### 8.3. First Article Inspection

First Article Inspection: The organization's system shall provide a process for the inspection, verification, and documentation of a representative item from the first production run of a new part, or following any subsequent change that invalidates the previous first article inspection result.

NOTE: See (AS) (EN) (SJAC) 9102 for guidance.

### 8.4. Control of Non-Conforming Product.

The supplier shall ensure that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming product shall be defined in a documented procedure.

The suppliers' documented procedure shall define the responsibility for review and authority for the disposition of nonconforming product and the process for approving personnel making these decisions.

The supplier shall deal with nonconforming product by one or more of the following ways:

- a) by taking action to eliminate the detected nonconformity;
- b) by authorizing its use, release or acceptance under concession by a relevant authority and, where applicable, by the customer;
- c) by taking action to preclude its original intended use or application.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, shall be maintained (see 4.2.4). When nonconforming product is corrected it shall be subject to re-verification to demonstrate conformity to the requirements.

When nonconforming product is detected after delivery or use has started, the organization shall take action appropriate to the effects, or potential effects, of the nonconformity.

### 8.5. Statistical Quality Control and Analysis

The supplier shall:

- Submit any sampling plans used for product acceptance to Vibro-Meter SA for approval prior to use. This requirement is applicable to the supplier and to the supplier's sub-tier contractors. Sampling is not permitted until the sampling plans have been approved.
- utilise sampling plans when tests are destructive or when the records, inherent product characteristics, or the non-critical application of the product, indicate that a reduction in inspection or testing can be achieved without jeopardising quality.

## **GENERAL QUALITY SYSTEM REQUIREMENTS (QSR) – 002**

### **MINIMUM INSPECTION SYSTEM REQUIREMENTS (DISTRIBUTORS ONLY)**

#### **1. SCOPE**

This specification requires the establishment of a quality program by the supplier to assure compliance with contractual requirements set fourth by Vibro-Meter SA. It is based upon MIL-Q-9858A, AQAP-1 and other requirements that are flowed down by the nature of the product and/or process.

#### **2. APPLICABILITY**

This specification is applicable when referenced on a Purchase Order or Contract from Vibro-Meter SA.

#### **3. REQUIREMENTS**

##### **3.1. Responsibility for Inspection**

The supplier shall perform, or have performed, all inspection necessary to substantiate that the material or services offered for acceptance conform to purchase order/contract requirements.

##### **3.2. Corrective Action**

The supplier shall take prompt action to correct assignable conditions that have resulted, or could result in, the submission of non-conforming product or services to Vibro-Meter SA.

##### **3.3. Inspection Equipment**

Inspection/test equipment used by the supplier shall provide valid measurements (i.e. calibrated to national standards).

##### **3.4. Quality Verification**

Vibro-Meter SA and/or customer quality representative reserves the right to verify, at Vibro-Meter SA or the supplier's facility, conformance of the material or service to purchase order/contract requirements.

##### **3.5. Non-Conformance**

Non-conforming materials shall be identified and segregated from conforming material. Non-Conforming material shall not be supplied to Vibro-Meter SA without written approval in advance from Vibro-Meter quality department. Non-conforming material, having received approval, shall be segregated and the specific non-conformance clearly identified.

### 3.6. Accommodation and Assistance

When on-site verification of purchase order/contract conformance is required, the supplier shall provide the equipment, facilities, and the personnel necessary for our representatives to verify conformance.

- Allow Vibro-Meter SA Customers or Regulatory Authorities access to the suppliers facility when on site verification of purchase order/contract conformance is required.

## **SUPPLEMENTAL PURCHASE ORDER CONDITIONS (SPOCs)**

### **1. Scope**

The individual requirements require the establishment of supplemental quality conditions by the supplier to assure compliance with contractual requirements set fourth by Vibro-Meter SA and its customers. It is based upon AS9100 and other requirements that are flowed down by the nature of the product and/or process.

### **2. APPLICABILITY**

The requirements are applicable when referenced on a Purchase Order or Contract from Vibro-Meter SA. The requirement shall be referenced by the number of the (SPOC) on the purchase order/contract.

### **3. REQUIREMENTS**

#### **100 ISO9001 CERTIFICATION.**

The organization shall have a quality management system that complies with International Organization for Standardization document ISO 9001 – Quality Management System Requirements. Independent certification/registration is not required.

#### **101 AS9100 CERTIFICATION.**

The supplier shall have a quality management system that complies with Society of Automotive Engineers (SAE), AS9100 Quality Management Systems - Aerospace - Requirements. Independent certification/registration is not required.

#### **102 AS9100 CERTIFICATION WITH INDEPENDENT CERTIFICATION.**

The supplier shall have a quality management system that complies with Society of Automotive Engineers (SAE), AS9100 Quality Management Systems - Aerospace - Requirements. Independent certification/registration is required under the Aerospace Industry controlled AS9104 process.

Organizations that obtain certification/registration to AS9100 and subsequently changes certification/registration bodies (CRB), loses its registration status, or is put on notice of losing its registration status, shall notify its customer's procuring organization(s) within three days of receiving such notice from the organization's registration body (CRB).

#### **103 REQUIREMENTS FOR INDUSTRIAL PROGRAMS.**

Quality requirements will be defined by the Purchase Order when Supplemental Purchase Order Conditions (SPOCs) are not applicable for industrial applications.

**104 NOTIFICATION OF NON-CONFORMING HARDWARE.**

The supplier shall provide prompt, written notification to Vibro-Meter SA when non-conforming products or processes are discovered that may affect product already delivered. Notification shall include a description of the discrepancy, parts affected (by serial number, lot number, etc.) delivery dates and the corrective action for the discrepancy. Additionally the supplier shall provide prompt, written notification of failures that may affect fit, form, or function of the product, which may affect product already delivered. Notification shall be made attention: Quality Director, Vibro-Meter SA, Rte de Moncor 4, P.O Box, CH1701 Fribourg, Switzerland. Fax communication may be made to +41 26 407 1860

**105 CALIBRATION OF EQUIPMENT AND GAGES OWNED BY VIBRO-METER.**

Equipment and Gages owned by Vibro-Meter SA that is calibrated by external suppliers shall be performed to controlled process and according to ISO9001 and/or ISO 10012-1 which replaces MIL-STD-45662A.

Calibration certificates shall at a minimum include the following:

- Name and address of the calibration company.
- Make, model, serial number, and description of the equipment for calibration.
- Date of the calibration.
- The calibration interval.
- Procedures used to calibrate the equipment.
- Environmental conditions during the time of calibration.
- Increments of test, before adjustment, after adjustment, and upper/lower tolerances.
- Percentage of the tolerance that the equipment is calibrated for.
- The certificate shall state if the equipment was received in tolerance or out of tolerance.
- The master equipment used for calibration. The manufacturer, model and, serial number, description, calibration date and interval shall be noted on the certificate.
- All reference standards used shall be traceable to METAS (Swiss Federal Office of Metrology and Accreditation) or equivalent standard. The reference standards shall be noted on the certificate.
- A signature of the companies authorised person to perform the tests.
- Equipment and gages shall be adequately stored and protected to prevent damage or corrosion. Rework, repair or disposal shall not be performed without written approval from Vibro-Meter SA. Contact the buyer if equipment or gage drawing or other information is required.

**106 CERTIFICATION OF CONFORMANCE REQUIRED.**

Supplier shall provide a certification of conformance with each shipment, signed and dated by an authorised supplier representative.

Certification shall include:

- Purchase Order number
- Part number and revision letter
- Quantity and if applicable, serial numbers
- Manufacture's name and if applicable, manufacture's part number
- Applicable date code or lot number
- Fixed process number and revision, if applicable
- A statement that parts/materials conform to the applicable drawing, specifications, and purchase document requirements.
- Material Safety Data Sheet, if applicable, shall be provided with the product.
- Supporting documentation, with quantitative results of all testing required by the applicable specification, shall be maintained by the supplier.

Fastener Certifications: Fasteners (nuts, bolts, screws, threaded inserts, etc.) ordered to government or industry specifications (AN, MS, N AS, SAE, etc.) require certifications that provide quantitative results of testing required by the applicable specification.

**107 AGE CONTROL OF SHELF LIFE ITEMS.**

Certification is required with each shipment that specifies if the products furnished under this order are shelf life limited (i.e., age sensitive). It shall also be identified if there are specific environmental storage conditions that affect the shelf life. The supplier shall also ensure that a minimum of 75% of the shelf life is remaining at date of shipment, unless directed otherwise by the Purchase Order.

**108 RECORD RETENTION / INSPECTION IDENTIFICATION.**

The supplier shall retain Quality/inspection records on file for a period of 7 years. Retention period is from date of order completion.

**109 OFFSET CREDIT.**

This Purchase Order is issued with the intent of qualifying for offset credit under existing or future commitments of our customers, affiliates, subcontractors, or third parties.

**110 EXPEDITED DELIVERY CHARGE.**

An expedited delivery charge is authorised by Vibro-Meter SA on this order. The payment of such expedited delivery charge(s) is contingent upon receipt of acceptable units on or before the specified promise delivery date. Failure to meet this expedited delivery date will result in non-payment of the expedited delivery charges on non-delivered units.

**111 RECEIPT OF CLASSIFIED MATERIAL.**

By signing and returning the acknowledgment copy of this purchase order, supplier acknowledges receipt of furnished classified material along with the obligation to treat such material in accordance with Government Security regulations.

**112 CONTROL OF DOCUMENTS.**

Acceptance of this contract/purchase order, will require any changes that are made to the suppliers quality system documentation to be reviewed and approved by the Vibro-Meter SA. The exact document(s) that must be approved is subject to agreement between Vibro-Meter SA and the supplier.

**113 RIGHT OF ACCESS.**

Work under this purchase order/contract is subject to government or customer surveillance/inspection at the supplier's facilities and sub-tier supplier's facility. If a surveillance/inspection is to be conducted by the government or customer the organization will be notified prior to this event.

**114 CUSTOMER SOURCE INSPECTION.**

Customer source inspection is required prior to shipment of articles from the supplier's facility. Upon receipt of this order and prior to commencing work, promptly notify the Vibro-Meter SA purchaser assigned to the supplier's facility so the appropriate inspection plan can be coordinated.

In the event that a Vibro-Meter SA purchaser does not normally service the supplier's facility, immediately notify the Vibro-Meter SA to obtain a point of contact for the appropriate Vibro-Meter SA purchaser assignment. Source inspection shall be conducted by the customer at the supplier's facility or where designated in the order. The supplier shall notify Vibro-Meter SA a minimum of 5 working days in advance of the time the articles or materials are ready for inspection or test.

The supplier shall make available to the Vibro-Meter SA representative all applicable drawings, specifications, procedures, statements of work, Customer's Order, test software, and changes thereto, related inspection and/or test equipment, and such other information as may be required to satisfactorily perform the inspections and tests required under this Order.

**115 CHANGE AUTHORITY.**

This procurement is for a product, part or process that is critical in nature to the end item or vehicle. The Organization shall provide in writing advance notification to the Customer of any change(s) to tooling, facilities, materials or processes of the delivered item including sub-tier supplier changes. This includes, but is not limited to, fabrication, assembly, handling, testing, facility location or introduction of a new sub-tier supplier.

**116 ELECTROSTATIC DISCHARGE (ESD) PROTECTION PROGRAM.**

The organization shall document and implement an ESD Control Program in accordance with ANSI/ESD S20.20, ESD Association Standard for the Development of an Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices). Parts must be properly packaged and identified as required in ANSI/ESD-S20.20. All goods will be placed in conductive or static-dissipative packages, tubes, carriers, conductive bags, etc., for shipment. The packaging must be clearly labelled to indicate that it contains electrostatic sensitive goods. Electrical parts that may be used or shipped in conjunction with ESD sensitive parts shall be treated as ESD sensitive.

**117 FOREIGN OBJECT DAMAGE.**

For articles, particularly components and assemblies susceptible to foreign object damage, the organization shall ensure articles are free from foreign objects and foreign object damage resulting from processing or assembly and packaging operations. Use of NAS 410 standard for guidance is recommended.

**118 FIRST ARTICLE INSPECTION.**

The organization is required to perform first article inspection on the items in this contract/purchase order. First article inspections shall be in accordance with AS9102. The inspection records and data shall be per AS9102 and shall identify each characteristic and feature required by design data, the allowable tolerance limits, and the actual dimension measured as objective evidence that each characteristic and feature has been inspected and accepted by the organization's quality and/or inspection function. When testing is required, the parameters and results of the test shall be recorded in the same manner.

The first article inspection report must show evidence of acceptance by the organization's quality assurance representative. The first article(s) shall be produced on production equipment and using processes which will be utilized on production runs.

Additionally, the organization shall perform subsequent FAI(s) per the requirements of AS9102 (i.e., following every major tooling, every design change, and subsequent to any evident quality degradation for a specified part or article). Records of all first article activity will be documented as required in AS9102, treated as quality/acceptance records, and made available to the customer if requested.

The supplier shall provide 1 reproducible copy of the first article records and first article report accompanied by variables data with the initial shipment.

**119 CERTIFICATE OF COMPLIANCE FOR RAW MATERIALS REQUIRED.**

The supplier will include with each shipment the raw material manufacturer's test report (e.g., mill test report) that states that the lot of material furnished has been tested, inspected, and found to be in compliance with the applicable material specifications. The test report will list the specifications, including revision numbers or letters, to which the material has been tested and/or inspected and the identification of the material lot to which it applies.

When the material specification requires quantitative limits for chemical, mechanical, or physical properties, the test report will contain the actual test and/or inspection values obtained. For aluminium mill products (except castings), certifications for chemistry may indicate compliance within the allowed range. Certifications for physical properties will show actual values.

When organization supplies converted material produced by a raw material manufacturer, the organization shall submit all pre and post conversion chemical/physical tests reports.

**120 CERTIFICATE OF COMPLIANCE FOR CALIBRATION**

The supplier shall submit for each item calibrated, one reproducible record of actual calibration results, including applicable graphic and tabular data. Records shall be traceable to the individual item tested, by part number, serial number and customer's order number for the item shipped. The supplier's calibration certificate shall include a unique calibration tracking number, tolerance range, and when applicable, environmental conditions for each parameter calibrated. The certificate shall also state

the operating error per specification, the degree of correction of out of tolerance condition and remaining uncorrected out of tolerance condition, if applicable.

## 121 **NADCAP SPECIAL PROCESS CERTIFICATION.**

Fulfillment of this contract requires performance of special processes. Special processes shall be performed only by sources that have been surveyed and qualified/approved, by Nadcap (National Aerospace and Defense Contractors Accreditation Program). The supplier shall provide to the Vibro-Meter SA upon request all documentation showing evidence of qualification of use of Nadcap approved special processes. A special process certification shall be provided with each shipment of item(s) delivered on this contract. Special Process Certifications may be in supplier format and shall include the following:

- Customer's Order number
- Part number(s)
- Serial and/or lot numbers, of the hardware processed (if applicable)
- Special process specification and revision
- A certification stating the special process was performed per the applicable drawing/specification requirements.
- Nadcap Approval
- supplier's name and address
- When special processor is other than the Supplier, provide a certification of compliance from the special processor stating the special process was performed per the applicable drawing/specification requirements. Certifications must include the processor's name, address, Nadcap approval and be signed and dated by a company official.
- Each certification must be signed and dated by a company official of the Supplier and/or Processor attesting to the acceptance of the processes performed to the required specification(s).

The supplier shall retain all records associated with the selection and approval of supplier approved special process providers. Per contract or regulatory agency requirements, these records shall be made available to the Customer and/or regulatory agencies upon request. The supplier shall notify the Customer prior to destruction of records relative to this contract.

**122 CERTIFICATE OF COMPLIANCE REQUIRED.**

The Supplier shall provide a certification with each shipment to attest that the parts, assemblies, subassemblies, or detail parts conform to the order requirements. When applicable, the true manufacturers, lot, heat, batch, date code, and/or serial number must appear on the certification. Certification must contain the following:

- Customer's order number
- Line number
- Part number
- Name and address of manufacturing or processing location
- Manufacturer's lot, heat, batch, date code, and/or serial number (if applicable)
- Quantity and unit of measurement (each, box, case, gallons, etc.)
- Be signed and dated by an official of the company.

And the following statement shall be included on the certificate:-

"The applicable material test results, process certifications and inspection records are available upon customer's request. Inspections necessary to determine the acceptability of all articles under this order were completed. All articles submitted in this order are subject to final acceptance by the customer."

**123 LIMITED LIFE AND AGE CONTROLLED (SHELF LIFE) ITEM DOCUMENTATION.**

Products on this Order require submittal of date of manufacture when shelf life is based on date of manufacture, or date of shipment from the manufacturer when shelf life is based on date of shipment, as appropriate, based on specified method of shelf life determination.

Upon shipment, shelf life remaining shall meet the minimum shelf life specified on the order. If no shelf is specified, 75 percent of the shelf life shall be remaining on products on this order.

- Certification must contain the following:
- Customer's Order number
- Order part number
- Manufacturer's name, lot, heat, batch, date code, and/or serial number (as applicable)
- Date of manufacture
- Date of shipment from manufacturer (as specified on Order)
- Organization name, and Organization's point of contact
- Date

**124 ELECTRICAL WIRE AND CABLE TEST REPORT.**

Organization shall provide certification that each shipment of electrical wire or cable furnished under this contract conforms to the applicable specifications. For each lot or cable in each shipment, a certified test report or copy thereof shall be included with the packing sheet. The test report shall, at a minimum, include a record of the physical, chemical, or electrical (and in the case of RF cable, electronic) inspections and tests conducted to satisfy the acceptance requirements of applicable specifications, and shall include numerical results when applicable.

For cable shipments, these requirements apply to both basic and finished cable. When the specification requires other inspection or test data to be reported, it shall be included in the test report. Reports shall provide the organization or supplier's name, the specification number and revision date or change letter, and other data required by the specification, and must be identified to or correlated with the lot shipped.