

**001 CERTIFICATION OF COMPLIANCE:**

All parts/processes supplied by the supplier must be certified as to their compliance with all purchase order requirements. The certification must contain, as a minimum:

- A) The Byron Products purchase order number.
- B) The Byron Products part number and drawing revision level.
- C) Quantity supplied.
- D) Supplier's name and if applicable, suppliers part number.
- E) For Age Sensitive Material (Shelf Life) reference manufacture/cure date, lot/batch code, and expiration date.

Note: A minimum of 75% of the shelf life must be remaining at date of shipment.

**002 Non-Conforming Product:**

Authority to ship nonconforming material must be obtained through Byron Products. Nonconforming material shipped without prior approval is subject to return at the supplier's expense. The supplier must gain approval to ship nonconforming product via Byron Products Quality Manager. Each supplier is required to Notify Byron Products if a product or article has been released from that supplier and subsequently found not to conform to the applicable Requirements.

**003 Right to access:**

Byron Products, our customers and regulatory agencies shall be afforded the right to review contracted work, records, and material on the premises and verify that the product conforms to specified requirements.”

**004 Retention of Records:**



Records shall be maintained on file at supplier’s facility. If a time limit is not specified, records shall be kept for ten (10) years subsequent to completion of purchase order deliveries

Type of Customer	Retention Period
Commercial	<b>3 years</b>
Medical	<b>7 years</b>
Aerospace (Non-Rotating Parts)	<b>10 years</b>
Aerospace (Rotating Parts)	<b>30 years</b>

**005 Changes effecting the quality system:**

Changes in any of the below requires Byron’s Quality Mgr. to be contacted in writing:

- A) Changes in product, and or processes...
- B) Changes of supplier...
- C) Changes of manufacturing facility location, and where required, obtain organization approval.
- D) Flow down the supply chain the applicable requirements including customer requirements.

**006 TRACEABILITY:**

Traceability shall be maintained from receipt of raw material through finished product. Records and material must be identified by lot number, material type, specification and applicable revision identifier or date of issue, heat number, serial number, etc., as required to maintain traceability.

**007 FIRST ARTICLE INSPECTION (FAI):**

Submit First Article sample with report for first build, revisions, and after 2 year lapse in production. AS9102 First Article Inspection is the preferred format. The supplier shall furnish first article sample(s) produced using the material, tooling, processes, and planning to be used for subsequent deliveries. The first article samples(s) shall be identified and submitted with a FAI report. The FAI report shall include the Byron Products supplied drawing with numbered characteristics corresponding to an itemized layout reflecting actual readings and shall show compliance to all drawing characteristics, blueprint notes and specifications. Include the method of measurement for dimensional characteristics. For subsequent revisions to the drawing, only those characteristics, notes or specification affected by the revision require reporting. A copy of the raw material C of C is required for an initial build first article and a first article submitted after a two year lapse in production.

NOTE: Submit initial build first article prior to production run shipment unless otherwise directed by Byron Quality Mgr.

#### **008 MATERIAL PROHIBITION SUBSTITUTION:**

Unauthorized Material Substitution (General)

Unauthorized material substitutions are not permitted on Byron's product. Unauthorized material substitution includes any deviation from the engineering definition of a raw material.

#### **009 CALIBRATION SYSTEM:**

The supplier is required to establish and maintain a calibration system that conforms to the applicable requirements of ISO 10012, ISO/IEC 17025 or ANSI/NCSL Z540.3.

A) Material and/or special process specifications (Military, Government, or Commercial) that appears on the PO or drawing callout.

B) Company representative signature and title. Computer generated signatures are acceptable.

NOTE: Statement including phrases such as "to the best of my knowledge and belief" are not acceptable. The statement "the material meets all applicable specifications, drawings, and PO requirements" (or similar statement) is not acceptable in lieu of supplying the information required above for manufactured parts and processes.

## **010 Quality Requirements for Purchased Services:**

### Instrument & Gage Calibration

- A Certification of Calibration shall be provided by the supplier listing the Std.ID number and NIST traceability

- A long form certificate listing actual test results shall be provided by the supplier

- The environmental conditions under which the calibration was performed shall be listed on the supplier's certification

- The supplier shall conform to MIL-Std-45662A

## **011 MATERIAL TEST REPORTS:**

Supplier shall include a copy of the mill test report which contains the complete chemical and mechanical test data that has been verified by the supplier as meeting the acceptance requirements of the applicable raw material specification and/or engineering drawing. It is acceptable to have actual test values or range limit data from the raw material producer.



## 012 Process Gases

All gases shall be delivered with certification of analysis to the requirements noted in the specification listed below:

- A) Nitrogen shall be compliant to the requirements of CGA-G10.1
- B) Argon shall be compliant to the requirements of CGA-G11.1
- C) Hydrogen shall be compliant to the requirements of CGA-G5.3
- D) Helium shall be compliant to the requirements of CGA-G9.1
- E) Oxygen shall be compliant to the requirements of CGA-G4.3
- F) Ammonia shall be compliant to the requirements of CGA-G2

## 013 Weld Wire Quality Requirements:

The supplier shall identify each piece of weld wire with the material type by means of a flag tag and/or stamping with the material type.

- A) For Aerospace or Medical applications the supplier shall provide a certification for each lot of material which shall include the following:
  - B) Heat lot number and actual chemical composition. The certification must state either totally conforms to the specification or state any exceptions.
  - C) Specification number and revision number, e.g. AMS 4777 Rev A.
  - D) The length and diameter of the wire.
  - E) The amount of material in pounds, feet, etc.
- \*\* For Aerospace applications all material certifications must be provided by a GE S-400 approved Laboratory. (See GE yellow pages).

**014 Braze Alloy & Thermal Spray Material Quality Requirements:**

Braze alloy & Thermal Spray containers shall be identified with the material type and lot number.

- A) For Aerospace or Medical applications the supplier shall provide a certification for each lot of material which shall include the following:
- B) Heat lot number and actual chemical composition. The certification must state either totally conforms to the specification or state any exceptions.
- C) Specification number and revision number, e.g. AMS 4777 Rev A.
- D) The amount of material in pounds, feet, etc.  
\*\*For Aerospace applications all material certifications must be provided by a GE S-400 approved laboratory. (See GE yellow pages).

**015 Subassembly Component Quality Requirements:****Subassembly Components for Commercial Applications**

The supplier shall certify that all subassembly components purchased for commercial applications conform to all applicable blueprints and specifications.

**Subassembly Components for Medical and/or Aerospace Applications**

- A) The supplier shall provide a certificate of conformance to the applicable drawing
- B) The supplier shall provide inspection data for the given lot of material
- C) The supplier shall provide a material certification listing the heat lot number and the actual chemical composition. The certification must state either totally conforms to the specification or state any exceptions.



D) For Aerospace applications all material certifications must be provided by a GE S-400 approved laboratory. (See GE yellow pages).

**016 Electrode Material Quality Requirements:**

The supplier shall provide a certification of the material type

**017 Raw material for internally manufactured product:**

The supplier shall color code or stamp each item to identify the material type

For Aerospace or Medical applications the supplier shall provide a certification for each lot of material which shall include the following:

A) Heat lot number and actual chemical composition. The certification must state either totally conforms to the specification or state any exceptions.

B) Specification number and revision number, e.g. AMS 4777 Rev A.

C) The dimensions of the material

D) The amount of material in pounds, feet, etc.

\*\*For Aerospace applications all material certifications must be provided by a GE S-400 approved laboratory. (see GE yellow pages).

**018 Heat Treatment Services:**

The supplier shall provide a certificate of conformance to the applicable Drawing, Specification, or Blue Print number

-Hardness Test results, if applicable, shall be provided by the supplier

Calibration equipment used for calibration of furnaces



- Must meet and be certified to AMS2750 Standard for Aerospace work

### Plating Services

The supplier shall provide a certificate of conformance to the applicable Drawing, Specification, or Blue Print number

Plating thickness and material identification shall be included in the certificate

Test requirements for the supplier shall be listed on the purchase order

\*\*For aerospace applications, a statement that the supplier's process will not be changed without the prior approval of Byron Products shall be included in the purchase order

### 019 Welding Services:

The supplier shall provide a certificate of conformance to the applicable Drawing, Specification, or Blue Print number.

The certificate of conformance shall include the weld wire lot number, material type, and specification number.

### 020 Thermal Spray Services:

The supplier shall provide a certificate of conformance to the applicable Drawing, Specification, or Blue Print number

The certificate of conformance shall include the type of coating, the coating thickness, and actual test results  
Test requirements for the supplier shall be listed on the purchase order

\*\*For aerospace applications, a statement that the supplier's process will not be changed without the prior approval of Byron Products shall be included in the purchase order

### 021 Black Oxide Services:





The supplier shall provide a certificate of conformance to the applicable Drawing, Specification, or Blue Print Number.

## **022 Non Destructive Testing (NDT) Services**

The supplier shall provide a certificate of conformance to the applicable Drawing, Specification, or Blue Print number

The supplier's certificate of conformance shall include the type of NDT performed, the name of the test technician, and indicate acceptance or rejection of the tested parts

The supplier shall provide a written report listing the test results for the specific serial number and/or lot number of the parts tested.

## **023 Special Process Requirements for Aerospace Work:**

GE Aircraft All special process suppliers used for such processes as material testing, welding, heat treat, etc. shall be approved for that process by GE (see GE yellow pages).

Other Aerospace Work All special process suppliers used for such processes as material testing, welding, heat treat, etc. shall be approved for that process as required by the specific customer.

## **024 Contracted Labor:**

Contracted labor personnel performing special processes shall be qualified for the specific process they are performing. Qualified personnel shall be described as being Certified, Customer Approved, and Certified by Byron Products, or Process Certified, to applicable industry standards. Records of qualification shall be obtained prior to the issuance of contracted work and those records shall be kept on file with the Byron Products Quality Department.

**025 General Electric:**

*Flowdown of requirements in GE specifications S1000, S1001 and S1002 apply.*

2) Additionally, for Weld Wire / Braze material:

*Material Certifications from an approved GE S-400 lab required.*

**026 Champion:**

1) *Champion Quality clauses 100, 110, 130, 150, 160, 170, 180, 220, 240, 250, 270, 280, 300, 310 and 360 are applicable and can be found on their website:*  
<http://www.championaerospace.com/assets/106019-10-13-Purchase-Order-Quality-Clause.pdf>.

**027 Rolls Royce (Dependable):**

1) For Weld Wire: *“Mill has to be Rolls Royce approved and certified to ISO 9001. Material Certifications from an approved Rolls Royce mill / GE S-400 lab required.” \*\**

a) If not ordering from a mill: *“Material Certifications from an approved Rolls Royce mill / GE S-400 lab required. Mill and Supplier have to be ISO 9001 certified.” \*\**

**028 PSM:**



“PSM General Terms and Conditions for Purchase dated February 7 2014 are incorporated by reference herein. The documents are available at <http://www.psm.com/PSMSpec.asp> with password !@PSM&\*

**029 GENERAL REQUIREMENTS FOR AVIATION PRODUCTS:**

All parts shall be packaged for shipment to Byron Products using any suitable means that will prevent damage or as specified in PO or specifications.

**REVISIONS:**

Rev	Date	Change	By
000	10/26/15	New issue	Donnie Vierling