

PURCHASING QUALITY ASSURANCE REQUIREMENTS (PQAR)

All items that are not grayed-out are considered essential to the fulfillment of this purchase order. Supplier must read, understand and comply with all items listed below. All general clauses are required.

Specific Quality Clauses Required: 1, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, 21, 26, 29 and 32.

PURCHASING GROUP 1: Simulation Products

GENERAL CLAUSES TO SUPPLIERS

(These clauses apply to all purchase orders issued by Bugeye Technologies):

GENERAL CLAUSES TO SUPPLIERS (these clauses apply to all purchase orders issued by Bugeye Technologies):

- 1. This attachment established Bugeye Technologies (BT), the Buyer's, quality and reliability requirements, as specified in the text of the Purchase Order relative to the procurement. It is designed to inform suppliers of their responsibilities in assuring that suppliers and services conform to Engineering Quality, Reliability and other contractual requirements.
- 2. In the event of discrepancies between requirements and detail specifications or drawings, the detail specifications or drawings shall govern. Should discrepancies be noted, they are to be documented and the buyer notified at once.
- 3. The supplier shall maintain and be thoroughly familiar with the buyer's specifications and drawings. The supplier shall understand and agree to the completeness of such documents, otherwise the supplier shall require the buyer to clarify or furnish additional information prior to proceeding with execution of the contract.
- 4. The supplier is responsible for conformance of all items procured from every tier of their suppliers and shall assure that the requirements of this document and applicable drawings and specifications are incumbent upon procurement's sources. Suppliers are responsible for the selection and control of lower tier supplier of all products, processes or services used in the execution of all purchase orders. Documented evidence as to control of sub-tier suppliers shall be maintained.
- 5. The supplier is responsible for identifying and notifying Bugeye Technologies of any nonconforming processes, products or services from the suppliers or supplier's subcontractors. Identification of the non-conformance shall be promptly communicated to Bugeye Technologies, including processes, products and services already shipped to Bugeye Technologies. The seller is only allowed to ship the identified non-conforming processes, products or services if disposition is approved by Bugeye Technologies.
- 6. BT reserves the right of access by the organization, their customer and regulatory authorities to all facilities involved in the order and to all applicable records.
- 7. **Conflict Materials** Bugeye Technologies is committed to compliance with Section 1502 of the U.S. Wall Street Reform and Consumer Protection Act. To satisfy customer requirements and the goals of the Act, Bugeye and its



suppliers will strive to provide only conflict free products through responsible and appropriate sourcing activities. Bugeye's approved suppliers, both public and private, are required to conduct due diligence on the presence of Conflict Minerals in their supply chain and provide accurate reporting and certifications on the presence of Conflict Minerals in products provided to Bugeye. Suppliers unwilling to implement procedures which assure only conflict free products are supplied to Bugeye may be ineligible for Bugeye approved supplier status.

- 8. Work under this Purchase Order is subject to Bugeye Technologies surveillance audit at Supplier's location. Bugeye's Customers and Regulatory Authorities shall have right of access to all facilities involved in the purchase order and to all applicable records. Bugeye Technologies Quality Assurance Representative may elect to conduct Inspection on a surveillance basis, or perform 100% Inspection. Suppliers will be notified by Bugeye Technologies if Inspection or surveillance is to be performed on specific shipments. No shipments are to be held for inspection unless notification is received in writing prior to the scheduled ship date. The frequency of audits will be in direct correlation to the quality of product delivered.
- 9. **Specific Export Requirements:** When Seller provides end items in support of contract requirements, the following Export flow downs apply:
 - a. In performing the obligations of this Agreement, both Parties will comply with all United States export control and sanctions laws, regulations, and orders, as they may be amended from time to time, applicable to the export and re-export of goods, software, technology, or technical data ("Items") or services, which include but are not limited The Export Administration Regulations ("EAR") administered by the US Department of Commerce, International Traffic in Arms Regulations ("ITAR") administered by the US Department of State, The Foreign Corrupt Practices Act ("FCPA"), administrated by The Department of Justice and the SEC, and all regulations and orders administered by the Treasury Department's Office of Foreign Assets Control, (collectively, "Export Control Regulations and Laws").
 - b. The Party exporting any "Items" listed above shall be responsible for obtaining any required Export License or authorization for such export from the appropriate governmental agency. The Party conducting the re-export to a sub-tier supplier or 3rd party shall be responsible for obtaining any required Export License or authorization from the appropriate governmental agency prior to re-export. Each Party shall cooperate in a reasonable manner to support the other in its efforts in obtaining any necessary licenses or authorizations required to perform its obligations under this Agreement.
 - c. The Party providing any "Item" under this Agreement to a supplier, sub-tier supplier or 3rd party, shall, upon request from said supplier, sub-tier supplier or 3rd party, provide the Item's Export Control Classification Number ("ECCN") and Harmonized Tariff Code (HTS), as well as the ECCN and HTS of any components or parts thereof if they are different from the numbers of the Item at issue.
 - d. Each Party represents that (i) the "Items", and any parts or components thereof, that it is providing under this Agreement are not "defense articles" as defined in 22 C.F.R. sub section 120.6 of the ITAR and (ii) the services it is providing under this Agreement are not "defense services" as defined in 22 C.F.R. sub section 120.9 of the ITAR. The Parties acknowledge that this representation means that an official capable of binding the Party providing such Items knows or has otherwise determined that such Items, parts and/or components thereof, are not listed on the ITAR's Munitions List at 22 C.F.R. sub section 121.1. Each Party agrees to reasonably cooperate with the other in providing, upon request of the other Party, documentation or other information that supports or confirms this representation.
 - e. To the extent that such "Items", parts and/or components thereof, were specifically designed or modified for a military end use or end user, the Party providing such Items shall notify the other Party of this fact and shall also provide the other Party with written confirmation from the United States Department of State that such Items, and all such parts or components thereof, are not subject to the jurisdiction of the ITAR as they are not listed on the US Munitions List.



10. ITAR Requirements: Any documents that include items or technology covered by the Munitions List are subject to the International Traffic In Arms Regulations (ITAR), 22 CFR 120-130. Accordingly, all suppliers are prohibited from exporting technical data to a foreign person without authorization from the U.S. State Department. It is the responsibility of the recipient of this purchase order to ensure their compliance with all applicable U.S. export regulations. Seller agrees to comply with all applicable U.S. export control laws and regulations, specifically including, but not limited to, the requirements of the Arms Export Control Act, 22 U.S.C. 2751-2794, including the International Traffic in Arms Regulation (ITAR), 22 C.F.R. 120 et seq.; and the Export Administration Act, 50 U.S.C. app. 2401-2420, including the Export Administration Regulations, 15 C.F.R. 730-774; including the requirement for obtaining any export license or agreement, if applicable. Without limiting the foregoing, Seller agrees that it will not transfer any export controlled item, data, or services, to include transfer to foreign persons employed by or associated with, or under contract to Seller or Seller's lower-tier suppliers, without the authority of an export license, agreement, or applicable exception. Seller must comply with ITAR, part 122.1 Registration requirements (a), Any person who engages in the United States in the business of either manufacturing or exporting defense articles or defense services is required to register with the Office of Defense Trade Controls. Manufacturers who do not engage in exporting must nonetheless register.

11. PART MARK:

When a part mark specification or direction is provided by the drawings, specifications or Purchase Order, the following shall be applied below those part mark requirements.

- a. The manufacturing date
- b. The Supplier's name or cage code traceable to the Supplier
- c. The number used by the Supplier to provide traceability of their quality records (e.g., Serial Number, Lot Number, Control Number, Work Order/Traveler Number)
 - d. Non-conformance document number (when applicable)
- 11.1 When a part mark specification or direction is not provided by the drawings, specifications or Purchase Order, the part mark shall be applied in accordance with MIL-STD-130 or equivalent, which shall include the following:
 - a. The part number specified on the Purchase Order
 - b. The manufacturing date
 - c. The Supplier's name or cage code traceable to the supplier
- d. The number used by the Supplier to provide traceability of their quality records (e.g., Serial Number, Lot Number, Control Number, Work Order Number)
 - e. Non-conformance document number (when applicable)
- 11.2 Traceable items for which size and/or application that do not allow for part number and serial number identification shall be individually packaged and identified by an appropriate label.
- 12. **ETHICAL STANDARDS:** Suppliers are responsible for ensuring that their employees, service providers and subcontractors are aware of their contribution to product safety, conformity, and the importance of ethical behavior.
- 13. **COMPETENCE:** Supplier shall provide evidence of competency for any required qualification of persons and processes to perform tasks that require approval or are considered a special process (i.e. chemical processing, heat treat, calibration, etc.).
- 14. CALIBRATION AND TEST EQUIPMENT: The supplier system of calibration service and test equipment repair shall be certified to ISO/IEC 17025 or other applicable certifications and are traceable to NIST standards.



15. **FLOW DOWN OF CUSTOMER REQUIREMENTS:** Supplier shall flow down all customer requirements to employees and subcontractors. The flow down of customer requirements shall be flowed down to all levels of sub-tier products and services.

Specific Quality Clauses (these clauses only apply when specifically called out on the purchase order):

- 1. **BT ACCEPTANCE AT DESTINATION:** Articles ordered in this contract are subject to final acceptance at destination.
- 2. **CUSTOMER SOURCE INSPECTION:** BT customer source inspection is required prior to shipment from your facility.
- 3. **BT SOURCE INSPECTION NOTIFICATION:** Upon receipt of this order, promptly notify the Buyer so that appropriate planning for BT customer inspection can be accomplished.
- 4. **BT SOURCE INSPECTIONS:** The Buyers Quality Assurance Representative will perform inspection at the supplier's facility prior to shipment.
- 5. **VERIFICATION OF COMPLIANCE:** The seller shall provide any and all inspection and/or test equipment and qualified operators of such equipment as necessary to the buyer's or the buyer's customers quality representative(s) to verify compliance to this order.
- 6. **AS9100D QMS REQUIREMENTS:** The supplier's system of quality management and control during the performance of this contract shall be compliant with AS9100 revision D Quality Management Systems Requirements for Aviation, Space and Defense Organizations. **Third Party Certification is required.**
- 7. **ISO 9001:2015 REQUIREMENTS:** The supplier's system of quality management and control during the performance of this contract shall be compliant with ISO 9001:2015 Quality Management Systems Requirements. **Third Party Certification is required.**
- 8. **QUALITY CONTROL SYSTEMS REQUIREMENTS:** The supplier's system of quality management and control during the performance of this contract shall be compliant with ISO 9001 Quality System Requirements. **Third Party Certification is not required.**
- 9. **CERTIFICATE OF CONFORMANCE:** Certificates of Conformance signed by an authorized representative of the seller are required stating that the shipment of articles on this order conform to the applicable material and/or process specifications. The certification shall as a minimum contain the following information:
- Sellers name and address
- Date certification issued
- Buyers purchase order number
- o Part Number/Governing specification



- 10. **RETENTION OF RECORDS (10 YEARS):** Seller and Seller's Subcontractors shall maintain records, documented information, that demonstrate conformance to requirements, verifiable objective evidence of all inspections and test performed, results obtained and dispositions of non-conforming articles. This includes material, heat treating, processing and test reports associated with product. These records shall be identified to associated articles, including heat and lot number of materials, unit or lot serialization when applicable, and shall make such records available on a timely basis to Buyer, Buyer's Customers or Regulatory Agencies, upon request. Records shall remain legible, readily available, and retrievable for a Period of **10 years** after the final payment of that line item unless extended record retention requirements are specified elsewhere in this contract or attachments (e.g. Flight Safety / Critical Item drawings, specifications, Customer Contract requirements). Buyer may request delivery of such records at no additional cost.
- 11. **SUBCONTRACTOR RECORD RETENTION:** Seller's records that provide evidence of conformance to specified requirements and the effective operation of the quality system shall remain on file by Seller for a retention period of **10 years** unless otherwise specified by contract. Seller shall also ensure such records of Seller's Subcontractor(s) shall remain on file by Seller's Subcontractor(s) or Seller for the same retention period.

Additionally:

- Such records [including those retained by Seller's Subcontractor(s)] shall be made available to Buyer, Buyer's Customer(s) including Government and Regulatory Agency authorized representatives. At any time during the identified retention period, at Buyer's request, Seller will deliver such records or any part thereof in format / media and within a time frame as agreed to by both parties, to Buyer, at no additional cost to Buyer.
- 12. **AGE CONTROL CERTIFICATION:** Such certification must state that the shelf life of material used in fabrication of material covered by this purchase order has not expired for example, bonding compounds, paints, primers, rubber goods and the like. Show cure/assembly date and expiration date as well as environmental storage temperatures. For items that have an extensible shelf life, such as rechargeable batteries, the prescribed internal for restorative action (such as charging) shall be noted.
- 13. **CHEMICAL AND PHYSICAL TEST REPORTS:** One (1) copy of actual chemical and/or physical test reports, for each lot, batch or heat shall accompany each shipment. This includes all material certifications, all electronics certifications (including origin of conflict minerals data), all chemical processing certifications or heat treating certifications (special processes).
- 14. **OTHER REQUIREMENTS:** Components covered by this order shall be adequately packaged and/or packed to prevent damage or contamination of parts and their markings.
- 15. **SHIPPING DOCUMENTS**: Seller's shipping document accompanying each shipment of reworked or replacements article(s) must bear adequate reference to the buyer's rejection document, and objective evidence that the cause(s) for rejection have been corrected.
- 16. **DIMENSIONAL INSPECTION:** Record the results of identified dimensional requirements listed on Bugeye drawings. Provide results of the required dimensional inspections to Bugeye at receipt of the order.



- 17. **FIRST ARTICLE INSPECTION (FAIR):** Supplier shall provide BT buyer with a complete First Article Inspection Report for mechanical, dimensional, electrical characteristics, as applicable. Clauses 5, 9, 12 and 13 shall be required when First Article Inspection is required by PO or Contract. Use the AS9102 FAIR document or equivalent.
- 18. **CHANGES:** The supplier shall obtain approval through BT buyer prior to any changes in material, design, manufacturing method, manufacturing location (subcontractor change), tooling or special process change that may affect function, interchangeability or reliability. This shall apply to both BT design, customer design and supplier proprietary items. Any changes require communication with Bugeye for approval prior to implementing the change(s). Any approved change shall be documented on the packing list / Cert of Conformance along with evidence of the approval from BT.
- 19. **APPROVED SUPPLIERS:** The supplier shall use customer-designated or approved external suppliers. Selection of approved suppliers must be approved through BT buyer prior to performing any operations in material, design, manufacturing method, manufacturing location (subcontractor change), tooling or special process. This shall apply to both BT design, customer design and supplier proprietary items. Any changes require communication with Bugeye for approval prior to implementing the change(s).
- 20. **SUPPLIER MONITORING:** Supplier shall monitor their sub-contractors for performance and report any sub-contractors that are not performing to standards set by supplier.
- 21. **REPAIR:** Supplier may not, without written approval by BT, repair by welding, brazing, soldering or adhesive, any parts damaged or found to be faulty during fabrication. Defects in castings or forgings shall not be repaired by any method unless authorized in writing by BT.
- 22. **SPC**: Statistical techniques shall be used as directed on the purchase order flow down. Techniques are to be followed per specification requirements or customer requirements listed on the purchase order.
- 23. **KEY CHARACTERISTICS:** When KEY Characteristics, special requirements or critical items are specified on the drawing or purchase order, the supplier shall utilize Statistical Process Control (SPC) methods to collect and analyze KEY Characteristic data and take appropriate action to reduce variation. Documented methods and procedures for variability reduction shall be established and maintained. When KEY Characteristics are not specified, Seller is encouraged to utilize variability reduction methods to improve product quality and reduce quality costs.
- 24. **ACCEPTANCE TESTS:** Supplier shall furnish BT buyer one (1) copy of each acceptance test procedure for approval prior to conducting tests.
- 25. **TEST DATA:** Supplier shall provide BT buyer with a complete set of test data certified by an authorized representative of the supplier as recorded during the performance of this procurement order and as specified below for the purposes of quality analysis. Test, Inspection and Verification data (including production process verification) shall be provided to BT including any or all applicable items below:
 - Inspection Acceptance test data
 - Verification data (including production process verification)
- Qualification test data (this data may be based on previous qualification data on a similar part type)
- Screening test data test results for each lot or batch of material shipped.
- 26. Workmanship shall conform to "Best Commercial Practices".
- 27. Safety Data Sheets (SDS) are required with each shipment



28. Age Sensitive Materials - The supplier shall furnish the manufacture date and product shelf-life information with each shipment.

29. COUNTERFEIT PART PREVENTION

- a. The supplier shall have a counterfeit detection process for all electrical, electronic, electro-mechanical and electro-optical component parts that meets the intent of SAE standard AS5553, Counterfeit Electronic Parts, Avoidance, Detection, Mitigation, and Disposition. For all electrical, electronic, electro-mechanical and electro-optical component parts delivered and/or used in the manufacture of deliverable products shall be from the Original Component Manufacturer (OCM)/ Original Equipment Manufacturer (OEM) or franchised distributors or Authorized Aftermarket Manufacturer (AAM).
- b. The supplier shall have a counterfeit detection process for all non-electrical standard parts, like fasteners, nuts, washers, springs, O-rings, inserts, and pins that meet the intent of SAE standard AS6174, Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel.
- c. Supplier must have a certification from the Original Component Manufacturer (OCM)/ Original Equipment Manufacturer (OEM) or Authorized Aftermarket Manufacturer (AAM) or authorized distributor. Note: Distributors shall, in addition to the above, include their company's certification for each part number shipped. d. In the event a part is not directly available from the OCM/ OEM/ AAM or franchised distributors (electronics) or authorized distributor (NON-electronics), purchase from independent distributors may be made but the evidence of supply chain traceability (chain of custody) back to OCM/ OEM/ AAM shall be available upon request. The Certification shall clearly identify the name and location of all the supply chain intermediaries from the original manufacturer to the final source of the product delivered to Bugeye Technologies.
- Note: Distributors shall, in addition to above, include their company's certification for each part number shipped. e. Supplier's that deliver next higher assemblies shall flow this requirement down to all their sub-tier suppliers to prevent the inadvertent use of counterfeit parts and materials. Component certifications from the OCM/ OEM/ AAM must be readily retrievable and made available upon request. If evidence of supply chain traceability (chain of custody) to the OCM/ OEM/ AAM is not available, the supplier must notify Bugeye immediately and get authorization to purchase this product.
- f. Confirmed counterfeit parts will be segregated from conforming parts and controlled until rendered unusable by physical destruction. Excess, suspect or confirmed counterfeit parts may not be returned to the Supplier for refund or replacement except under controlled conditions which would preclude the resale or re-introduction into the supply chain. The Supplier shall be notified and authorization to scrap obtained before product is destroyed.
- g. Confirmed counterfeit parts will be replaced to the Government Industry Data Exchange Program (GIDEP) and applicable US Government investigative authorities.
- h. Suppliers shall be liable of all costs relating to the removal and replacement of Counterfeit Work, including without limitation Bugeye's and Bugeye's customer's cost of removing counterfeit items, of reinserting replacement Work and of any testing necessitated by the reinstallation of items after counterfeit items have been exchanged.
- 30. Domestic Material: Seller is required to follow all guidelines of the Defense Federal Acquisition Regulation Supplement (DFARS).
- Located in Part 225 –Foreign Acquisition
- 48 CFR 252.225-7009 "Restriction on Acquisition of Certain Articles Containing Specialty Metals" (excluding paragraph (d) and paragraph (e)(1) which are deleted from this clause.) (Applicable to Purchase Orders for items containing specialty metals to ensure compliance of the end products that Buyer will deliver to the Government under prime contracts awarded or modified to include the clause after July 28, 2009 according to the clause.)



31. **DESIGN & DEVELOPMENT CONTROL:** The Supplier will maintain approvals from Bugeye Technologies for design and development control. Supplier will also provide a test specimen upon request to be used for design approval, inspection/verification, and investigation or auditing.

32. MATERIAL SUBSTITUTION PROHIBITION

A. Unauthorized Material Substitution (General)

Unauthorized material substitutions are not permitted on Buyer's Goods. Unauthorized material substitution includes any deviation from the engineering definition of a raw material. Engineering definition includes Buyer design drawing and applicable specifications, product specification, form, size, shape, chemistry, melt method, origin, temper/condition, product testing or surface finish. Alternate materials specified in the engineering definition (and often described as approved material substitutions therein) do not constitute unauthorized material substitution. Terms and definitions for metallic materials and processing used herein are clarified in ARP1917. Contact Buyer's Authorized Procurement Representative for details regarding deviations to authorized materials. Seller agrees and understands that such deviations only apply to this purchase contract, and only as indicated in the Buyer's authorized document.

B. Metallic Materials (Specific)

Temper or Condition Conversion - Unless specifically authorized by the engineering definition, conversion of a raw material (i.e. heat treat to change the temper or condition of the material) constitutes material substitution of the condition provided by the manufacturer.

Metallic Raw Materials – Buyer's engineering drawings may refer to obsolete or superseded specifications covering several forms, thicknesses, widths, etc. of the alloy or alloys. The required characteristics of these materials are defined not only by the objective test standards of the specification, but by the processes/methods by which this final form is achieved. These requirements are often captured in the definitions of the required material forms, and may not be explicitly called out in the detailed requirements. The raw material certification results from both the process used to make it and the tests to verify basic properties.

Seller shall ensure that metallic materials covered by current or obsolete/superseded specifications are produced using the standard industry practices designed strictly for the production of stock to the specified thickness, diameter, width or cross sectional area, achieved by thermomechanical processing or casting process. Chemical, electrochemical and mechanical methods used for the removal of surface scale or contamination, BDS Terms and Conditions Guide Clause Number: D607 Effective: 11/15/2013 Page: 2 of 2 or the production of the required surface finish, in accordance with the material specification are acceptable. Raw material must not be re-certified with respect to thickness, diameter, width or cross sectional area or product form. Machining or cutting of thicker product or other product forms shall not be supplied in lieu of specified product unless specifically authorized by Buyer. Raw material certifications for material or parts shall reflect the form and size of the raw material as originally manufactured by the raw material producer.

C. Specification Supersession:





For government specifications and standards canceled after June 1994, Seller and subcontractors at all tiers shall use the last active revision of the canceled specification and standard until an acceptable replacement is included in the requirements of this Contract. Contact the Buyer's Authorized Procurement Representative in the event of any inconsistency in applicable specification or standard.

D. Reports (Full Pedigree from melt to final product) -

Raw material certifications shall show clear traceability to the manufacturer(s) of the raw material including ingot source, all thermo-mechanical processing (i.e. forging, rolling, drawing, etc), heat treatment, chemical processing and inspections as required by applicable raw material specification requirements.

E. Chain of Custody (Disguising intermediate ownership) -

Suppliers shall not disguise the pedigree of material or chain of ownership by removal of a previous supplier's name, nomenclature or identification.

F. Source of Additional Information -

Addition information and guidance may be found through Buyer's Supplier Portal or Buyer's Authorized Procurement Representative.

- G. The substance of this Article shall be flowed in all subcontracts at every tier.
- 33. Boeing D6-51991 DPD (Digital Product Definition) Approval Required
 - A. DIGITAL PRODUCT DEFINITION (DPD) / MODEL-BASED DEFINITION (MBD)

Seller shall conform to Buyer's document D6-51991 "Quality Assurance Standard for Digital Product Definition at Boeing Suppliers" and obtain Buyer approval as DPD-Capable if Seller receives, downloads and/or uses Buyer's DPD geometry in any format.

If seller receives Buyer's DPD geometry in MBD format, Seller is required to verify Boeing approval as MBD-capable.

If Seller provides Buyer's DPD geometry to Seller's subcontractors in any format, Seller shall impose Boeing document D6-51991 as a requirement and is responsible for its subcontractor's conformance

If seller provides Boeing DPD geometry in any format to Seller's subcontractors, Seller shall comply with all applicable export laws. A copy of Buyer's document D6-51991 and associated documents can be obtained at the following URL or available through Buyer's Authorized Procurement Representative.

http://www.boeing.com/companyoffices/doingbiz/dpd.html