QUALITY REQUIREMENTS FOR PURCHASE ORDER

Prepared By
ATK Tactical Propulsion and Controls Division
Cage Code: 3BJAO

ES-109

REVISION HISTORY

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The following ATK Tactical Propulsion and Controls Division Quality Assurance Provisions (QAP) apply to this purchase order.

GROUP 1
This purchase order line item is classified as a Group 1 procurement by ATK Elkton, LLC Quality Assurance.

QAP-000, GENERAL QUALITY ASSURANCE PROVISIONS

This document establishes general requirements for product assurance that are applicable to items ordered under the purchase order of which these provisions form a part. These provisions are intended to assure that the procured items meet the quality and reliability requirements of ATK Elkton and our customer, and apply unless expressly excluded or superseded in the purchase order. Additional Quality Assurance Provisions (QAPs) may also apply as designated in the purchase order.

1. CORRESPONDENCE

All correspondence relating to particular articles shall reference the specification(s) and/or drawings(s) (including number and revision) and the purchase order number. All correspondence shall be directed to the procurement division of ATK Elkton.

2. CONFLICT IN INSTRUCTIONS

In the event of apparent conflict among the purchase order provisions, the supplier shall obtain clarification from the procurement division of ATK Elkton as to the exact interpretation of requirements. Failure to obtain clarification may subject the procured articles to rejection.

3. RESPONSIBILITY FOR COMPLIANCE

The inspections set forth in the drawings and specifications shall become part of the supplier's overall inspection system or quality program. The absence of any inspection requirements in the drawings or specifications shall not relieve the supplier of the responsibility of assuring that all products or supplies submitted to ATK Elkton for acceptance comply with all requirements of the purchase order. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit ATK Elkton to acceptance of such defective material.

4. SUPPLIER QUALIFICATION

Upon ATK Elkton acceptance of first article inspection or first piece(s) inspection (as required), supplier is restricted to use only those suppliers of materials, components and services (i.e., sublet machining, molding, forming, etc.) that participated in the initial
contract qualification. Supplier's quality program shall maintain a listing of these suppliers, corresponding to the product or service they provide, including the associated drawing or specification by which the material or service is controlled. At time of purchase, the supplier's quality program shall assure that only those suppliers who are qualified and contained in the listing are used for follow-on purchase.

Any change in supplier participation that deviates from these qualified suppliers shall be requested in writing from ATK Elkton.

5. SPECIAL TOOLING AND SPECIAL GAGES AND EQUIPMENT

Special tools and special gages and equipment which are used for dimensional control and acceptance in lieu of inspection by standard methods or standard gages and equipment shall be designed and maintained to assure repetitive compliance to governing drawings within the specified tolerance zone(s) of the dimension(s) being controlled or accepted.

6. FINAL ACCEPTANCE AT ATK ELKTON

Acceptance will be based on inspections performed at ATK Elkton facilities. ATK Elkton reserves the right to reject shipments that are found defective as a result of sampling.

7. PROCESSING, FABRICATION AND CHANGE APPROVAL

The supplier shall be responsible for meeting all drawing/specification and approved fabrication process requirements. Any changes are expressly prohibited in specified processes, method, procedure, material formulation relating to times, temperatures, pressures, ingredients, equipment, manufacturing, testing or inspection, without prior written notice to and approval by ATK Elkton Quality Engineering in writing.

Seller shall immediately notify the buyer of any change to seller's facility location(s) for the production of the material herein.

8. DISCREPANT AND NONCONFORMING ARTICLES

The supplier is not granted material review board (MRB) privileges on this purchase order/subcontract. Nonconforming articles shall be withheld from subsequent manufacturing operations until written authorization for use or shipment is received from ATK Elkton.

Requests to use or deliver nonconforming materiel will be made to the buyer on ATK Elkton form PC1-720 [F92001] (Nonconformance Report) or other format as authorized by the buyer. The Nonconformance Report shall include complete details of the discrepancy, an explanation of the root cause, and a statement of the corrective action to be taken to prevent recurrence.
If a Quality Assurance Representative (QAR) is servicing the supplier's facility, the QAR will review the form prior to submittal for (1) clarity of discrepancy, (2) cause of discrepancy, (3) corrective action, and (4) effectivity of corrective action.

Upon completion of material review board consideration, Buyer will forward the disposition to the supplier. If the buyer authorizes further processing of the discrepant materiel, the supplier’s records and the certification package will reference and include a copy of such authorization.

No discrepant material will be shipped by the supplier, except with the buyer’s written authorization.

**9. RESUBMISSION OF REJECTED ARTICLES**

All articles, including associated documentation, rejected by ATK Elkton and subsequently reworked to drawings, specifications, etc., shall bear indication of each resubmission. The accompanying documentation (discrepancy report, corrective action report, reinspection data, etc.), as required, shall be identified in the same manner as the article. The supplier shall contact the ATK Elkton procurement division for identification of articles submitted as replacement(s) for ATK Elkton rejected and supplier scrapped articles.

**10. PACKAGING**

When the drawing, specification, or purchase order lacks specific packaging instructions, the supplier shall use best commercial practices to ensure that the quality of the delivered part(s) is maintained and that damage, deterioration, and loss in transit are prevented.

Packaged items shall be free of dirt and other contaminants that would contribute to deterioration of the item or which would require cleaning by ATK Elkton prior to use. Items susceptible to corrosion or deterioration shall be provided protection such as preservative coatings, volatile corrosion inhibitors, or a desiccated environment. Items requiring protection from physical and mechanical damage, or which are fragile, will be protected by wrapping, cushioning, cartonizing, or other means to mitigate shock and vibration, and to prevent damage during handling and storage. Cushioning or wrap can be any suitable, appropriate material; except newspapers may not be used when painted surfaces are involved. Partitions or divisions must be used when necessary.

**11. FOREIGN OBJECT DAMAGE PREVENTION**

The supplier shall ensure that Foreign Object Debris (FOD) is controlled with the aim of preventing damage or degradation of the deliverable item, or of creating a hazardous condition to users of the deliverable item. Techniques that have been proven effective for control of FOD include: proper housekeeping; control of tools, personal items, and facilities; control of in-process hardware and consumables, including in-process scrap; kitting; and use of parts protective equipment.
QAP-001A, QUALITY ASSURANCE SYSTEM

The supplier will, in the performance of this order, provide and maintain a quality assurance program that complies with or is equivalent to MIL-Q-9858, ANSI/ASQC Q9001:1994, or ANSI/ASQC Q9001:2000. ATK Elkton reserves the right to conduct a survey/audit of the supplier's facilities to determine the adequacy of the supplier's quality assurance system.

QAP-002A, SOURCE SURVEILLANCE

ATK Elkton reserves the right to place quality assurance representatives (QARs) in the supplier's facilities, as deemed necessary, to ensure conformance with contractual requirements in any phase of design, processing, fabrication, testing, and inspection of the article(s) being produced. The supplier will provide all reasonable facilities and assistance for the safety and convenience of such personnel in the performance of their duties. Such representatives will be allowed full access to witness all operations involved in the fulfillment of this contract.

The supplier will grant the same access to representatives of the buyer’s customer, when accompanied by ATK Elkton personnel.

The supplier will secure the same privileges from lower-tier subcontractors.

QAP-002C, SOURCE INSPECTION

Products or services furnished under this purchase order will be inspected for compliance with quality and technical requirements of the purchase order at the supplier’s facility prior to shipment. Notwithstanding the results of source inspection, final acceptance will occur at destination. The buyer’s procurement representative must be notified 5 working days in advance of the shipment. If an ATK Elkton QAR is in residence at the facility, notification through procurement is not required.

QAP-002D, MANDATORY INSPECTION VERIFICATION

Inspection of designated dimensional characteristics or processes is mandatory and must be witnessed and/or verified by the ATK Elkton QAR servicing the supplier's facility.

If an ATK QAR is resident at the facility, QAR will be given at least 24 hours' notice (one business day) prior to the inspection. If an ATK QAR is not resident, the supplier shall notify the buyer at least five business days prior to the inspection.
Mandatory inspection stations may be waived at the discretion of the QAR or quality assurance engineer. When inspection or verification is waived, the supplier will record "waived" on the inspection documentation adjacent to the waived station and note the date of the waiver and the name of the ATK Elkton representative granting the waiver.

Contact the ATK Elkton quality engineer for a listing of mandatory inspection stations.

**QAP-003B, GOVERNMENT SOURCE INSPECTION REQUIRED**

Government inspection is required prior to shipment from your plant. Upon receipt of this order, promptly notify the Government representative who normally services your plant so that appropriate planning for Government inspection can be accomplished.

**QAP-004A, SUBCONTRACTED WORK**

The supplier is responsible for compliance with all quality and technical requirements imposed by ATK Elkton even when the supplier subcontracts part of the work. The supplier’s responsibilities with respect to subcontracted work include:

- Selection and control of subtier suppliers, unless otherwise specified in the purchase document.
- Transmission (flow down) of applicable quality and technical requirements to subtier suppliers
- Assuring traceability of items processed through subtier suppliers
- It is the supplier's responsibility to assure that the purchase order to the subtier supplier requires sufficient acceptance data to clearly fulfill the requirements imposed by the ATK Elkton purchase order to the supplier.

**QAP-004B, SUBCONTRACTED SPECIAL PROCESSES**

All special process suppliers used in the performance of this purchase order shall be approved by ATK (Elkton). If the supplier elects to utilize special process sources other than those on buyer’s approved supplier list, the supplier must provide evidence of approval by another ATK aerospace facility or perform a survey using a survey questionnaire acceptable to Elkton and forward it to the buyer for approval. The supplier shall have required approval(s) in place at the time of hardware processing.

The supplier is encouraged to submit the name(s) of intended special process suppliers to the buyer for consideration at the earliest practicable time.
The certification package shall include or reference the ATK document approving the use of the selected special process supplier.

Special processes include but are not limited to: heat-treating; plating, passivation, and application of surface finishes; NDT (radiographic, magnetic particle, penetrant, and ultrasonic inspection); welding, soldering, and brazing.

**QAP-005A, MANUFACTURING PLANNING**

Prior to any fabrication, the supplier will provide, for ATK Elkton approval, the planned manufacturing process, testing, and inspection procedures to be used in the fulfillment of this purchase order/subcontract. These procedures will include, as applicable, drawings of special tooling that may be used for dimensional acceptance and plans for performing tests on raw, semifinished, and/or finished materials. These procedures must document all operations that will be performed in conjunction with the fulfillment of this contract.

Any changes subsequent to the start of fabrication must be submitted for approval. Changes that affect the stated requirements of the part (Class I changes) shall be approved by the buyer prior to implementation. All other changes (Class II changes) may be submitted concurrently with implementation.

Buyer approval of plans referenced above will not be required if the plans have been approved on a previous contract. A list of the previously approved documents that will be used, including the document title, name, revision, and approval reference, must be submitted to the QAR, if in residence, and to the buyer prior to use.

**QAP-005B, INSPECTION PLANNING**

The supplier will submit, for ATK Elkton approval, plans for performing tests on raw, semifinished, and/or finished materials, including proof pressure test. The data obtained from these approved tests will be made available to buyer and Government representatives upon request.

Any changes subsequent to the start of fabrication must be submitted for approval. Changes that affect the stated requirements of the part (Class I changes) shall be approved by the buyer prior to implementation. All other changes (Class II changes) may be submitted concurrently with implementation.

Buyer approval of plans referenced above will not be required if the plans have been approved on a previous contract. A list of the previously approved documents that will be used, including the document title, name, revision, and approval reference, must be submitted to the QAR, if in residence, and to the buyer prior to use.
QAP-005C, APPROVAL OF PLANNING

Prior to fabrication of any deliverable item, the supplier will provide, for buyer approval, the planned manufacturing, testing, and inspection procedures to be used in the fulfillment of this purchase order/subcontract. These procedures will include, as applicable, drawings of special tooling that may be used for dimensional acceptance and plans for performing tests on raw, semifinished, and/or finished materials, including special process techniques to be approved by a Level III at ATK. These procedures must document all operations that will be performed in conjunction with the fulfillment of this contract.

Buyer approval of plans referenced above will not be required if the plans have been approved on a previous contract. A list of the previously approved documents that will be used, including the document title, name, revision, and approval reference, must be submitted to the QAR, if in residence, and to the buyer prior to use.

Any changes to the approved planning must be submitted to the buyer. Changes that affect the stated requirements of the part (Class I changes) shall be approved by the buyer prior to implementation. All other changes (Class II changes) shall be submitted for concurrence in classification, and may be implemented immediately at the supplier's risk.

The supplier is responsible for meeting all drawing/specification and approved fabrication process requirements.
Seller shall immediately notify the buyer of any change to seller's facility location(s) for the production of the material herein.

QAP-007, FIRST ARTICLE INSPECTION (FAI)

First Article Inspection is required on this purchase order. One-hundred-percent inspection of all dimensions, including tool-controlled dimensions, drawing notes, material callouts, and specification requirements, will be performed on the first part produced.

Notify the buyer 5 working days in advance of anticipated FAI. ATK Elkton will either send a quality assurance representative to participate, or waive participation.

In the event FAI is waived, the supplier shall forward results to the buyer for concurrence. Shipment may not be made until either 1) concurrence is received, or 2) five working days have passed since receipt of FAI data at buyer’s facility.

If any of the below listed changes occur after FAI, notify the buyer so that ATK Elkton may determine if another FAI is required.

- A significant design or process change has been made that affects the original first article. An incremental first article will be performed, which will be applicable only to those characteristics affected by the change.
A change in facilities or materials utilized to produce the article has taken place.

New, reworked or revised special tools, gages or equipment, are introduced, when dimensional control of manufactured articles is affected.

The supplier has not produced the item for a period of 12 months or longer.

**QAP-007A, INSPECTION**

Nondestructive inspection, and inspection of critical and major characteristics as defined on the drawing, will be performed on each piece. Minor characteristics may be inspected 100% or may be sample inspected in accordance with ANSI Z1.4, Single sampling, General Inspection Level II, Normal Inspection. The AQL shall be chosen such that AC=0, RE=1. An attribute that is sample inspected and found discrepant shall be 100% screened.

The supplier is to perform dimensional inspection and record the results. Actual dimensions are to be recorded and reported for each piece inspected.

The supplier is responsible for meeting all dimensional requirements of the drawing.

**QAP-008, CONTAMINATION CONTROL (TITANIUM)**

Control measures shall be taken to preclude any type of titanium corrosion. Specific actions to be taken include but are not limited to:

- Avoiding contamination by sulfur- or chloride-containing solvents, cadmium-plated components, and mercury.
- Immediate degreasing when fabrication is complete, or when additional work will not be performed for eight (8) or more hours.

**QAP-008A FOREIGN OBJECT ELIMINATION PROGRAM**

The subcontractor shall establish procedures to implement a Foreign Object Elimination (FOE) program. Existing subcontractor practices and procedures that meet specific requirements shall be documented and submitted to the buyer for review and concurrence. The procedures shall include the following elements as a minimum:

- Guidance on practices that, when followed, will eliminate damage caused by foreign objects during manufacturing, rework, and assembly and test, including but not limited to:
  
  - Inspection of materials and components on receipt at the work station for cleanliness and damage, and ensuring that they are clearly and properly identified;
o Continual cleaning of finished and in-process materials and the surrounding work
area as part of the normal in-process work effort;

o Steps in shop documentation to check for the presence of FO;

o Wearing attire that is appropriate for the specific work area – by both operators
and transients – including removal of all personal items, including jewelry (e.g.,
rings, watches, necklaces, earrings, badges), and restraining of all eyewear and ear
protection;

o Elimination or limiting FO-causing processes;

o A program to prevent tools, accompanying documents, and other items necessary
to the manufacture of the item from becoming foreign objects; and

o Ensuring that items not necessary to the manufacture of the item are not
introduced into the work area

• Establishment and maintenance of a training program for the FOE program.

• Identification of those categories of employees who require FOE training.

QAP-010A, IDENTIFICATION

The supplier is responsible for assigning lot or serial numbers as specified on the
drawing. Lot or serial numbers shall not be duplicated on this purchase order, and shall
not duplicate lot or serial numbers delivered against prior purchase orders.

If the drawing does not require serialization, the items shall be lot numbered. Serial
numbers, when used, shall run consecutively. If material is rejected, the serial number of
the rejected part will not be used again.

QAP-011, MANUFACTURING RECORDS

The supplier will maintain records necessary to show conformance with all requirements
of the purchase order/subcontract. These records include dimensional inspection records,
process control charts, temperature recorder charts, x-ray film, nondestructive testing
records, personnel certification documentation, nonconformance reports, process
qualification data, hydrostatic test records, and certifications of materials and special
processes. These records will be maintained for the greatest of:

• A period as required by the contract;
• Five (5) years; or
• The shelf/use life specified by the drawing or procurement specification.
QAP-012A, CERTIFICATION OF CONFORMANCE

A Certification of Conformance is required with shipment. The certification must include, for each part covered by the certification, the following minimum information:

- Purchase order number
- Part number and revision of the item supplied, as specified on the purchase order
- Drawing or specification number, with revision, for subtier documents
- Serial numbers covered by the certification (if serialized)
- A statement that the certified part meets all drawing, specification, and purchase order requirements
- Signature of the quality assurance manager or other responsible member of the supplier’s company
- The title of the person signing.

Material received without certification is subject to rejection and return to the supplier at the supplier's expense.

QAP-012B, CONFIGURATION STATEMENT

All applicable drawing and/or specification numbers and their respective revision levels shall be included in the certificate of conformance.

QAP-012E, PRODUCT COMPLIANCE AND PROCESS CHANGES

The supplier is responsible for meeting all drawing/specification and approved fabrication process requirements. Any changes are expressly prohibited in specified processes, method, procedure, material formulation relating to times, temperatures, pressures, ingredients, equipment, manufacturing, testing or inspection, without prior written notice to and approval by ATK Elkton in writing.

Seller shall immediately notify the buyer of any change to seller's facility location(s) for the production of the material herein.

QAP-013A, CERTIFICATION REVIEW AT SOURCE

Certifications will be submitted to the ATK Elkton quality representative for review and approval 48 hours prior to shipment. This review and approval will not in any way reduce the supplier’s responsibility for complete conformance to contractual requirements.
QAP-014, SPECIAL PROCESS CERTIFICATION

A Certification of Conformance to the special process(es) specified on the purchase order or drawing or specification is required with shipment. Material received without certification(s) is subject to rejection and return to the supplier at the supplier's expense.

The certification will contain, as a minimum, the following:

- Purchase order number, part number, revision, and serial number(s) of the part(s) covered by the certification;
- Applicable specification including, as applicable: revision, notice, amendment, type, grade, class, method, or other qualifier, as specified on the purchase order, drawing or specification;
- Signature of the quality assurance manager or other responsible member of the supplier’s company
- The title of the person signing.

Test data, radiographs, and/or residual test specimens prepared in compliance with the specification or purchase order will be supplied with the delivered parts.

QAP-014A, HYDROSTATIC OR PROOF PRESSURE TEST

A Certification of Conformance to the applicable hydrostatic or proof pressure test requirement is required with shipment. Material received without certification is subject to rejection and return to the supplier at the supplier's expense.

The certification will include, as a minimum, the following information, as applicable:

- Purchase order number, drawing number, specification number
- Test fluid
- Actual pressure and time at pressure
- Volumetric expansion vs. pressure
- Pressure at rupture, if applicable
- Number of tests performed on each part
- Dimensional inspection before and after test. Note: Dimensions to be inspected to demonstrate that there has been no permanent deformation due to hydrotest will be attached, if applicable.
- Signature of the quality assurance manager or other responsible member of the supplier’s company
- The title of the person signing.
If the required information is incorporated into an ATK-approved test plan, the certification may reference the test plan in lieu of reporting the information above.

**QAP-014B, HEAT TREAT CERTIFICATION**

A Certification of Conformance to the applicable heat treat specification is required with shipment. Material received without certification is subject to rejection and return to the supplier at the supplier's expense.

The certification will contain, as a minimum, the following:

- Purchase order number, part number, revision, and serial number(s) of the part(s) covered by the certification;
- Applicable specification including, as applicable: revision, notice, amendment, type, grade, class, method, or other qualifier, as specified on the purchase order, drawing or specification;
- Heat treat lot number;
- Results of physical property testing demonstrating compliance with specification requirements.
- Signature of the quality assurance manager or other responsible member of the supplier’s company
- The title of the person signing.

Test specimens will be supplied with the delivered parts as required by the specification or purchase order.

**QAP-014C, NONDESTRUCTIVE INSPECTION**

A Certification of Conformance to the applicable nondestructive inspection specification is required with shipment. Material received without certification is subject to rejection and return to the supplier at the supplier's expense.

The certification will contain, as a minimum, the following:

- Purchase order number, part number, revision, and serial number(s) of the part(s) covered by the certification;
- Applicable specification including, as applicable: revision, notice, amendment, type, grade, class, method, or other qualifier, as specified on the purchase order, drawing or specification;
- A statement that certified personnel were used to perform the testing;
- A statement that special process techniques have been approved by a Level III at ATK.
Signature of the quality assurance manager or other responsible member of the supplier’s company
The title of the person signing.
When radiography is performed, the resulting radiographs will be supplied with the parts. Film must be identified with ATK part number and serial number.

QAP-014E, SURFACE PREPARATION/PLATING

A Certification of Conformance to the applicable surface preparation or plating specification is required with shipment. Material received without certification is subject to rejection and return to the supplier at the supplier's expense.

The certification will contain, as a minimum, the following:

- Purchase order number, part number, revision, and serial number(s) of the part(s) covered by the certification;
- The name of the process (for example: passivation, anodizing, oxide coating, chemical conversion coating, painting, cleaning)
- Applicable specification including, as applicable: revision, notice, amendment, type, grade, class, method, or other qualifier, as specified on the purchase order;, drawing or specification;
- Signature of the quality assurance manager or other responsible member of the supplier’s company
- The title of the person signing.

Requirements, if any, for submittal of supporting data, are specified on the face of the purchase order.

QAP-016A, QUALITY PROVISIONS IN PROCUREMENT SPEC

The supplier shall comply with all technical, quality assurance, certification, and packaging requirements of the specification to which this item is procured.

QAP-018D, ATK-SUPPLIED MATERIAL

The supplier will certify that ATK-supplied material was used in the fabrication of part(s), listing ATK shipping document number, part number, lot number(s), and/or serial number(s) as applicable. ATK-furnished material will be handled and controlled so as to ensure its proper use in conformance to all requirements. The supplier will not in any way be relieved of the responsibility for compliance to traceability, identification, and certification requirements.
ATK Supplied Material Certification

Supplier is required to **complete and return** this certification to ATK, with the purchased product, to provide traceability of ATK supplied material to the purchased product. Failure to return this certification may result in rejection of the purchased product at ATK inspection.

**ATK Supplied Material Data**

ATK Shipping Document Number _____________________________

ATK Material Part Number ______________________________

Material Specifications (if applicable) _____________________________

**Purchased Product Data**

ATK Purchase Order Number _____________________________

ATK Part Number from Purchase Order _____________________________

Supplier Lot Number (if applicable) ____________________________

Supplier Serial Number (if applicable) ___________________________
Manned Space:
Articles ordered in this contract are for use in Manned Space Flight. Materials, manufacturing, and workmanship of the highest quality standards are essential to astronaut safety. If you are able to supply the desired items with a quality which is higher than that of the items specified or proposed, you are requested to bring this fact to the immediate attention of the purchaser. This clause will be inserted in all subcontracts and purchase orders for such items down to the lowest tier.

Right of Access:
All work on the Orion Program is subject to inspection and test by Orbital, Lockheed Martin and the Government.

Over the life of the program, the Subcontractor shall recognize the right of Orbital, its customers and/or the appointed Government representatives to participate in or perform audits, reviews, Mandatory Inspection Points (MIPs), source inspections and witness tests at the Subcontractor or their supplier’s facilities as appropriate. The Subcontractor shall provide a minimum of five working days advance notice prior to upcoming MIPs. The Subcontractor shall arrange facilities and accommodations with access to necessary work tools (desk, telephone, and internet access) for any Orbital visitors and/or residents. Orbital may wish to have on-site residents where the Subcontractor’s work is performed. The responsibilities of Orbital’s S&MA representatives will be clearly defined by Orbital.

QAP-V rev 0  SELLER'S ACCEPTANCE TEST PLAN APPROVAL

The Seller shall obtain the Buyer's approval of detailed plans and procedures for accomplishing all acceptance test required by the Buyer's drawings and specifications. Approval must be obtained prior to the Seller presenting hardware for acceptance. The witnessing of a demonstration of the procedures and equipment by the Seller is at the option of the Buyer. The detailed plans and procedures will contain as a minimum:

A. A list of all instrumentation, non-standard instrumentation calibration procedures, points of measurement and accuracy of measuring system.

B. Test conditions.

C. Test sequence.

D. Test Methods including a detailed step-by-step procedure of each test using instruments listed according to Item A. above. Supporting data for critical parameters or special equipment, such as: error analysis, schematic diagrams and panel layouts, which are not necessarily part of the procedure, but are required to adequately evaluate the procedure, shall be submitted as supplemental information.
E. Sample data sheets.

F. Quantity of test samples.
   1. 100% testing
   2. Lot acceptance
      A. Definition of lot
      B. Determination of lot sample size

Buyer's approval must be obtained prior to Seller's implementation of subsequent changes to the acceptance test plan. Buyer approval of the test plan does not relieve the Seller of the obligation of meeting all requirements as listed in the Buyer's drawings and specifications.
The following attachment, Orbital’s Subcontractor Product Assurance Requirements (SPAR) document 6029-GR2100, Revision -, applies in whole or in part as the document applies to the manufacture of the actuators, controller, and any software.