

Alliant Techsystems
Tactical Propulsion and Controls
Elkton Operations

QUALITY ASSURANCE PROVISIONS OF PURCHASE ORDER

This document includes all Quality Assurance Provisions available for inclusion on purchase orders and subcontracts issued by Alliant Techsystems Inc, Tactical Propulsion and Controls, referenced herein as "ATK Elkton".

Only those quality assurance provisions cited in the body of the purchase order are made a part of the order by reference.

Articles defined in the purchase order will not be accepted if certifications, documentation, test data, or reports specified herein are not submitted

These Quality Assurance provisions apply when specified on purchase orders originally issued on or after the most recent effective date in the Record of Changes (page 2). Unless otherwise specified in the purchase order, purchase orders issued prior to that date should use the Quality Assurance Provisions in effect at the time the original purchase order was issued.

Record of Changes

Effective Date	Description	Released By
March 24, 2008	Initial Release	W. R. Brownell
July 9, 2008	Add QAP-012F	W. R. Brownell
July 28, 2009	Add QAP-FW, revise QAP-000 and QAP-008A	W. R. Brownell

Quality Assurance Provisions

Alliant Techsystems, TP&C Division, Elkton Operations

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GROUP 1

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

GROUP 2

This purchase order line item is classified as a Group 2 procurement by ATK Elkton Quality Assurance.

GROUP 3A

This purchase order line item is classified as a Group 3a procurement by ATK Elkton Quality Assurance.

GROUP 3B

This purchase order line item is classified as a Group 3b procurement by ATK Elkton 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meet the quality and reliability requirements of ATK Elkton and our customer, and apply unless expressly excluded or superseded in the purchase order.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.

Items susceptible to damage by ESD shall be packaged in antistatic bags of conductive carbon ("black poly") or antistatic bags per MIL-B-81705 Type III. All external and internal packaging shall be properly identified with "ESD Sensitive Item" labels. Transparent "pink poly" bags or material shall not be used where the material can come into direct contact with the product.

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.

12. FAILURE REPORT

ATK will be notified within 24 hours of any material, component, tooling, or motor case failure during manufacturing or testing. In addition, the supplier will submit to ATK written failure reports within 72 hours of any failure. Failure reports will identify the failed item by serial number, part number and applicable revision letter.

The supplier will submit a failure analysis and corrective action report to ATK within 15 days of any failure. The report will include, as a minimum, the mode of failure, cause of failure, corrective action to be initiated, and a list of other parts affected.

Quality Assurance Provisions

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QAP-001A Quality Assurance System – Design Authority

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-001B Quality Assurance System – No Design Authority

The supplier will, in the performance of this order, provide and maintain a quality assurance program that complies with or is equivalent to MIL-I-45208, ANSI/ASQC Q9002:1994, or ANSI/ASQC Q9001:2000 less paragraph 7.3. 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-001C Quality Assurance Program (Commercial)

The supplier will, in the performance of this order, provide and maintain a quality assurance program that shall, as a minimum, provide the following:

- Verification that the supplied item was manufactured and inspected in accordance with purchase order requirements.
- A calibration and recall system to assure the accuracy of measuring equipment used for product acceptance.
- Detection of nonconforming material. Such material shall be identified, and segregated from stores of new and/or accepted material

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 program.

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.

A listing of mandatory inspection stations will be provided by the buyer under separate cover.

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.

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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 Submittal of 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 Submittal of 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.

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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 Damage (FOD) Prevention

The subcontractor shall establish procedures to implement a Foreign Object Damage (FOD) Prevention program using NAS412 as a guideline. The program shall be proportional to the sensitivity of the product(s) design to FOD, as well as, to the FOD generating potential of the manufacturing methods.

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;
 - Continual cleaning of finished and in-process materials and the surrounding work area as part of the normal in-process work effort;
 - Steps in shop documentation to check for the presence of FOD;
 - 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;
 - Elimination or limiting FOD-causing processes;
 - A program to prevent tools, accompanying documents, and other items necessary to the manufacture of the item from becoming foreign objects; and
- 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 FOD program.
- Identification of those categories of employees who require FOD training.

QAP-009 *Material Review*

The provisions of this QAP augment the requirements of QAP-000, clause 8. Conflict between the two shall be resolved so as to assure the least risk to ATK Elkton.

The supplier is granted Material Review authority only for those characteristics of the supplier's engineering data package that will not affect compliance with any characteristic of the Purchase Order.

Nonconformances against end-item characteristics of the item being procured, and for characteristics not defined by supplier-controlled documentation, must be handled and reported to ATK Elkton for disposition in accordance with QAP-000, clause 8, and include but are not limited to:

- Chemical, physical, or mechanical properties
- Finishes
- Dimensions
- Performance
- Reliability
- Electrical, logical, and physical interfaces

All other nonconformances against supplier-controlled documentation may be dispositioned by the supplier. Copies of all material review records, whether approved by the supplier or by ATK Elkton, shall be included in the end-item data package.

Prior to exercising the authority granted by this provision, the supplier's Material Review procedure must be approved by ATK Elkton. This procedure shall include the criteria used to authorize personnel for MRB authority.

Material Review Authority may not be flowed down to subtier suppliers unless specifically authorized by ATK Elkton.

QAP-010 *Serialization*

ATK Elkton has assigned serial numbers to the parts to be manufactured. Serial numbers will run consecutively. In no case will a serial number be repeated on a particular part. If material is rejected, the serial number of the rejected part will not be used again. A request will be made through the buyer if additional serial numbers are required.

QAP-010A *Serialization*

The supplier is responsible for assigning serial numbers as specified on the drawing, subject to the following:

- Serial numbers shall not be duplicated on this purchase order.
- Serial numbers shall not duplicate serial numbers delivered against prior purchase orders.
- If material is rejected, the serial number of the rejected part will not be used again.

Serial numbers shall be in the following format: Supplier's CAGE code, followed by a dash, followed by the supplier-assigned number. Example: 3BJA0-00001. Total length of the serial number shall not exceed 20 characters

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-012 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
- Serial numbers covered by the certification (if serialized)
- A statement that the certified part meets all drawing, specification, and/or 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-012A Certification Of Conformance with Subtier Configuration

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)

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- 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-012C Manufacturer Listed on QPL

Certifications shall include the name and address of the manufacturer of the material, the manufacturer's designation of the material, and a statement that the material appears on the current QPL (state revision) for the specification.

QAP-012D Suggested Source of Supply

Material herein has previously been produced by a supplier designated as a suggested source of supply on the applicable drawing(s) and/or specification(s). Should the material not be purchased directly from a suggested source of supply, the supplier, in addition to the required material certifications shall certify:

- That the material has been produced by a supplier designated as a suggested source of supply;
- The manufacturer's name and address.

In the event supplier plans to provide material from a manufacturer other than one designated as a suggested source of supply, the supplier shall provide buyer with a written request to deviate from same, and obtain buyer approval thereof prior to shipment.

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-012F Certification Of Conformance – Dock to Stock

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

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- Part number and revision of the item supplied, as specified on the purchase order
- Serial numbers covered by the certification (if serialized)
- A statement that the certified part meets all drawing, specification, and/or 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-013 Quality Record Sheet

The supplier must signify conformance to requirements of drawings and specifications by executing the Quality Record supplied by the buyer under separate cover. The Quality Record shall be signed by an authorized representative of the supplier's facility. This sheet and any required certifications must be included with each shipment. Note that no alterations are permitted to the Quality Record. Every line item must be completed. Initialed data corrections are permitted. ATK Elkton cannot accept material unless the quality records sheet and any required certifications are complete and correctly executed.

The supplier and subtier supplier through the supplier, if applicable, shall be responsible for meeting all requirements of drawing(s) and specifications. Actual acceptance inspection and test results must be maintained in supplier's files, subject to examination, indicating inspection, acceptance, and traceability of materials incorporated in the end item in accordance with governing drawings and specifications.

Records of inspections and tests must be maintained in supplier's files for a minimum of five (5) years from date of last shipment.

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-013B, Certification/Documentation Log

The supplier must signify conformance to requirements of drawings and specifications by submitting a certification package containing, as a minimum, the information described on the "Certification Requirements" page. The certifications must be included with each shipment unless otherwise specified on the purchase order. Initialed data corrections are permitted. ATK Elkton cannot accept material unless the certifications are complete and correctly executed.

The supplier and subtier supplier through the supplier, if applicable, shall be responsible for meeting all requirements of drawing(s) and specifications. Actual acceptance inspection and test results must be

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maintained in supplier's files, subject to examination, indicating inspection, acceptance, and traceability of materials incorporated in the end item in accordance with governing drawings and specifications.

Records of inspections and tests must be maintained in supplier's files for a minimum of five (5) years from date of last shipment.

QAP-013D Dimensional Inspection and Reporting

Dimensional inspection results will be supplied with the certification package. Actual dimensions must be recorded for each unit inspected. A range of dimensions representing all units delivered is not acceptable. The use of check marks or "OK" is not acceptable except in the case of tool-controlled dimensions.

If used, tooling used to control or accept dimensions must be validated prior to use and a First Article Inspection report prepared for the tool-controlled dimensions. The resulting FAI report shall be included with the certification package.

Unless otherwise specified on the drawing or purchase order, dimensional inspection will be performed as follows:

	Sample Size		
Lot Size	Critical characteristics	Major characteristics	Minor characteristics
288 or less	100%	80	12
289 to 544	100%	80	16
545 and up	Contact ATK	Contact ATK	Contact ATK

NOTES:

- If any sample item is found nonconforming, screen the lot for the nonconforming characteristic. Do not ship any nonconforming product without ATK permission.
- This sample plan is taken from the attributes sampling plan in MIL STD 1916, verification level II for Minor characteristics and verification level IV for Major characteristics
- In the event of conflict between the drawing and purchase order, contact the buyer.

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;

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- 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;

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- 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-014D Welding Certifications

The supplier will certify that all welding was performed in conformance with the applicable specification pertaining to certifications of processes and operators. Records of welders' certifications will be maintained by the supplier and will be subject to buyer review upon request. The buyer will be notified prior to any necessary weld repair, except where prior buyer approval has been granted or waived.

Certification of Conformance shall include:

- Signature of the quality assurance manager or other responsible member of the supplier's company.
- The title of the person signing.
- Applicable specification including, as applicable: revision, notice, amendment, type, grade, class, method, or other qualifier, as specified on the purchase order; drawing or specification.

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- Purchase order number, part number, revision, and serial number(s) of the part(s) covered by the certification.

Welding procedures (schedules) will be developed and evaluated to assure compliance with drawing and specification requirements. The resulting weld schedules shall not be changed without ATK concurrence.

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-016 O-Rings

The supplier shall comply with all technical, certification, and packaging requirements of the specification to which the O-rings are procured.

QAP-016A Quality Provisions in Procurement Specification

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

QAP-017 Procurement from a Recognized Source

All Electrical, Electronic, and Electromechanical (EEE) components included in assemblies and subassemblies being delivered per this order must have been procured by the seller directly from either the manufacturer of the item(s) or an authorized distributor of the manufacturer of the item(s). The certifications of the above mentioned (EEE) components shall be retained per the records retention requirements directed elsewhere within this order.

QAP-018 *Chemical Raw Materials*

Material provided under this purchase order shall be supplied and certified to the exact specification, revision, amendment, type, grade, etc. specified in the purchase order.

Material provided under this purchase order shall be obtained from a single identifiable manufacturing lot.

Marking shall include manufacturer's lot number.

A Certificate of Conformance shall be included with the shipment and shall include

- A statement that the material shipped meets purchase order requirements, including a listing of the specification, revision, amendment, type, grade, etc. as specified in the purchase order.
- Data supporting the conformance statement.
- The signature and title of the quality assurance manager or other responsible member of the supplier's company who signs the certification.

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

Any change in processing techniques, materials, or other factors affecting the quality of the product shall be immediately brought to the attention of ATK Elkton.

QAP-018A *Certification Requirements – Data Requirements*

Material provided under this purchase order shall be supplied and certified to the exact specification, revision, amendment, type, grade, etc. specified in the purchase order.

Marking shall be in accordance with purchase order and specification requirements and shall include traceability to the manufacturer's records identifier (heat, mult, or other identifier).

A Certificate of Conformance shall be included with the shipment and shall include

- A statement that the material shipped meets purchase order requirements, including a listing of the specification, revision, amendment, type, grade, etc. as specified in the purchase order.
- Mechanical and chemical test data supporting the conformance statement.
- The signature and title of the quality assurance manager or other responsible member of the supplier's company who signs the certification.

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

Any change in processing techniques, materials, or other factors affecting the quality of the product shall be immediately brought to the attention of ATK Elkton.

QAP-018B *Certification Requirements*

Material provided under this purchase order shall be supplied and certified to the exact specification, revision, amendment, type, grade, etc. specified in the purchase order.

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Marking shall be in accordance with purchase order and specification requirements and shall include traceability to the manufacturer's records identifier (heat, mult, or other identifier).

A Certificate of Conformance shall be included with the shipment and shall include a statement that the material shipped meets purchase order requirements, including a listing of the specification, revision, amendment, type, grade, etc. as specified in the purchase order.

Test data supporting the conformance statement shall be kept on file and be available for review by ATK personnel

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

Any change in processing techniques, materials, or other factors affecting the quality of the product shall be immediately brought to the attention of ATK Elkton.

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.

QAP-018E Name Brand or Commercial Chemicals – Data Required

Material provided under this purchase order shall be obtained from a single identifiable manufacturing lot.

Marking s shall include manufacturer's lot number.

A Certificate of Conformance shall be included with the shipment and shall include:

- A statement that the material shipped meets all the requirements established by the manufacturer for the named material.
- Data supporting the conformance statement.
- The signature and title of the quality assurance manager or other responsible member of the supplier's company who signs the certification.

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

Any change in processing techniques, materials, or other factors affecting the quality of the product shall be immediately brought to the attention of ATK Elkton.

QAP-018F Name Brand or Commercial Chemicals

Material provided under this purchase order shall be obtained from a single identifiable manufacturing lot.

Marking shall include manufacturer's lot number.

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A Certificate of Conformance shall be included with the shipment and shall include:

- A statement that the material shipped meets all the requirements established by the manufacturer for the named material.
- The signature and title of the quality assurance manager or other responsible member of the supplier's company who signs the certification.

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

Any change in processing techniques, materials, or other factors affecting the quality of the product shall be immediately brought to the attention of ATK Elkton.

QAP-018G Chemical Raw Materials

Material provided under this purchase order shall be supplied and certified to the exact specification, revision, amendment, type, grade, etc. specified in the purchase order.

Material provided under this purchase order shall be obtained from a single identifiable manufacturing lot.

Marking shall include manufacturer's lot number.

A Certificate of Conformance shall be included with the shipment and shall include

- A statement that the material shipped meets purchase order requirements, including a listing of the specification, revision, amendment, type, grade, etc. as specified in the purchase order.
- The signature and title of the quality assurance manager or other responsible member of the supplier's company who signs the certification.

Test data supporting the conformance statement shall be kept on file and be available for review by ATK personnel

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

Any change in processing techniques, materials, or other factors affecting the quality of the product shall be immediately brought to the attention of ATK Elkton.

QAP-099 Certification Review Prior To Shipment

Certifications will be submitted to ATK Elkton for review and approval prior to shipment. Provide copies of such certification/ documentation on form F98030, available at the website specified on the purchase order.

Upon concurrence with the certifications, ATK will complete the lower portion of F98030 and authorize shipment of material by faxing the completed form to the supplier. Original certification/documentation and a copy of the completed F98030 authorizing shipment shall accompany the material/ hardware shipment(s). ATK advance review and approval will not in any way reduce the supplier's responsibility for complete conformance to contractual requirements.

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This pre-submittal requirement is waived if ATK Source Inspection per QAP-002C, QAP-013A, or QAP-RD is performed.

QAP-AL *SAE AS9100 Quality Management System*

The material supplied on this contract must be controlled under a Quality Management System that conforms to all requirements of SAE AS9100 (Quality Systems-Aerospace-Model for Quality Assurance in Design, Development, Production, Installation and Servicing).

QAP-AN *ISO 9001:2000 Quality Management System*

- A. Seller's quality system shall be in compliance with the current revision of ISO 9001:2000.
- B. Compliance to ISO 9001:2000 shall be evidenced by current third party certification or determined by ATK audit/surveillance of the supplier's ISO 9001:2000 quality management system.
- C. Buyer and authorized Government Representatives reserve the right to enter Seller's plant (s) and those of Seller's suppliers at every tier with advanced notice, when reasonable, that may be engaged in work relating to the Purchase Order, for the purpose of surveillance/inspection of the Seller's (and Seller's suppliers) processes, controls, quality records and systems, as well as supplies/services procured under this Purchase Order. Surveillance/inspection of Seller's processes and controls will not constitute acceptance of the supplies/services being procured.

QAP-AV *Inspection System Submission*

- A. The Seller shall furnish two copies of a documented description of its inspection system within 60 days after receipt of go-ahead or prior to shipment of the first item, whichever occurs first, and shall describe the test and inspection function being used for this Purchase Order.
- B. The inspection system document shall include:
 - 1. Supplies/services flow chart with identified test and inspection points.
 - 2. Test description related to the test points, including description of the test equipment.
 - 3. Electrical
 - 4. Mechanical
 - 5. Optical
- C. Inspection description related to the inspection points, including a description of the inspection equipment and fixtures used:
 - 1. Visual
 - 2. Chemical
 - 3. Physical
 - 4. Workmanship

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- D. Identification of governing Buyer drawings, statement of work, and specifications (including notes and paragraph numbers) applicable to the inspection/test points.
- E. Notice of approval/disapproval of the documented inspection system by the Buyer will be given within 30 days after receipt of same by the Buyer. Disapproval may be cause for suspension of shipments at the option of the Buyer.
- F. All changes to the test and inspection function shall be documented and shall be submitted to the Buyer for approval prior to implementation.

QAP-B6 *Seller's Supplier Control*

All Seller procured supplies/services which become a part of the item(s) delivered in accordance with this Purchase Order shall conform to drawing(s) and specification(s) requirements. Seller's system shall assure: Purchase Order flowdown of applicable quality and technical requirements, suppliers' capability to produce items and adequate methods of assuring compliance. Seller's suppliers shall be required to flowdown and verify requirements of supplies/services they subcontract.

QAP-B7 *Supplier Control - Material Verification Requirements*

All Seller procured supplies/services which become a part of the item(s) delivered in accordance with this Purchase Order shall conform to drawing(s) and specification(s) requirements. Seller's system shall assure:

- A. Purchase Order flow down of applicable quality and technical requirements;
- B. The capability of Seller's suppliers to produce items and adequate methods of assuring compliance; and
- C. That Seller's suppliers will flow down and verify requirements of supplies/services that are subcontracted.

NOTE: The Seller is responsible for all aspects of conformance of the part or assembly to the drawing or specification as required by the Purchase Order.

At a minimum, Seller shall comply with the following requirements:

- A. The Seller may not accept products from a Sub-tier Supplier based solely on a Certificate of Conformance (C of C).
- B. The Seller shall define the method to be used to insure the Sub-tier Supplier's compliance to the drawing/specifications.
- C. The Seller, at a minimum, must sample, test, or inspect a sample, part, or coupon. This sample, test, or inspection shall be performed at the time of the First Article and at least once each 12 month period thereafter to insure sub-tier supplier compliance.
- D. Data sheets, test and inspection results will be maintained at the Seller's facility pursuant to applicable data retention requirements.

The Sub-tier data/acceptance criteria will be made available to the Field Engineer or Buyer on request.

QAP-BA *Statement of Work (SOW)*

A SOW applies to this purchase order. The material supplied on this order shall comply with the requirements of the SOW. Contact the cognizant ATK buyer if you do not have a copy of the SOW.

QAP-BR *Shipment to Released Drawings Only*

The supplier is not to ship assemblies/devices, unless he has met all the criteria/requirements of the applicable fully released ATK procuring document and associated sub-documents listed in same and/or PO/SOW. He is to contact the applicable ATK purchasing agent if the above mentioned documentation has not been made available at time of shipment.

QAP-EV *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
 - 2.1. Definition of lot
 - 2.2. 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.

QAP-FW *Preference for Domestic Specialty Metals*

This purchase order incorporates the contract clause at DFARS 252.225-7014 Alt 1. Any specialty metals (as defined in paragraph (a) of the clause) included in any articles delivered under this purchase

order must comply with that clause, and you must flow down 7014 Alt 1 to all of your vendors supplying any articles delivered under this purchase order that include specialty metals.

QAP-G2 *Submittal of Inspection and/or Test Data*

Seller shall provide objective, written evidence of hardware conformance to Purchase Order requirements with each shipment.

- A. Recorded data shall include not only results of all routine inspections and tests, but in addition, any special selection tests, conditioning (burn-in) tests, lot acceptance tests, sampling tests or any other test used to determine conformance.
- B. If Seller is a jobber or distributor of the item(s) in this Purchase Order, then Seller shall require the same performance documentation from the original manufacturer of the item(s). Additionally, Seller shall secure from that manufacturer a right for Buyer to acquire or inspect (at Buyer's option) all pertinent data in that manufacturer's possession showing the items compliance to all specifications.
- C. The exact format of the submitted data is not critical, but shall contain the following minimum information:
 - 1. Seller's name and address.
 - 2. Purchase Order number between Seller and Seller's subtier supplier(s), and P.O. revision number, if applicable.
 - 3. Buyer's part number and Buyer's Purchase Order number (and P.O. revision number, if applicable).
 - 4. Drawing/specification/supplier planning revision level.
 - 5. Number of items in lot.
 - 6. Number of items inspected.
 - 7. Acceptable quality level (AQL) used.
 - 8. Lot number and date code (if applicable).
- D. The Seller shall submit either attributes data or variables data, at Seller's discretion, unless variables data is specifically requested by the Buyer. The Seller's format is acceptable. As a minimum, attributes data shall include the parameter inspected, the tolerance and a summary of the inspection test results. Variables data shall include, at a minimum, the parameter inspected, the tolerance, and the measurement obtained for each item inspected.
 - 1. Data sheets and/or test reports shall bear evidence of acceptance by Seller's signature (or stamp) and date signed.

The submission of inspection and/or test data as provided herein shall not modify or limit any representations, warranties or commitments made elsewhere or in any way affect the obligation of the Seller to perform strictly in accordance with the provisions of this Purchase Order.

QAP-G3 *Inspection and/or Test Data Retention - 5 Years*

A. The Supplier shall retain objective written evidence of hardware conformance to Purchase Order requirements for each shipment.

NOTE: All evidence is subject to review and/or audit by ATK at Seller's facility or at ATK Elkton.

B. The following shall be retained for the period stated below if it is generated during the build of the part(s):

1. Any special selection test records,
2. Conditioning (burn-in) test records,
3. Lot acceptance test (LAT) records
4. Sampling test records or any other test records used to determine item conformance
5. Reports/certifications of chemical and/or physical analysis/test records that assure conformance to applicable specifications

C. NOTE: When required by the applicable specifications, reports/certifications are to reflect actual test values. Reports/certifications of chemical and physical analyses/tests are to be fully traceable to the specifications, part numbers, the ATK Purchase Order and the specific shipment.

D. If a Quality Attachment requiring any of the following is supplied by the buyer under separate cover, the data collected from the activity shall also be retained:

1. First Article Inspections/Tests (FAITs)
2. Nondestructive tests
3. SPC data (if applicable)
4. Any data collected for a HAR

E. If the Seller is a jobber or distributor of the item(s) in this Purchase Order, the Seller shall require the same documentation from the original manufacturer of the item(s). Additionally, Seller shall secure from that manufacturer a right for Buyer to acquire or inspect (at Buyer's option) all pertinent data in that manufacturer's possession showing the items compliance to specifications.

F. The Seller may obtain attributes data or variables data at Seller's discretion unless the variables data is specifically requested by the Buyer. The Seller's format is acceptable. As a minimum, attributes data shall include the parameter inspected, the tolerance, and a summary of the inspection test results. The variables data shall include the parameter inspected, the tolerance, and the measurement obtained for each item inspected.

G. Data sheets/test reports shall bear evidence of acceptance by Seller's signature (or stamp) and date signed.

1. The requested data is to be retained by the Seller for a period of five (5) years after the date of the completion of this Purchase Order, unless otherwise specified in this Purchase Order.
2. The requested data shall be made available for review by the ATK Field Engineer (FE) or designate when requested.

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3. The retention of inspection/test data, as provided herein, shall not modify or limit any representations, warranties, or commitments made elsewhere herein, or in any way affect the obligation of the Seller to perform strictly in accordance with the provisions of the Purchase Order.
4. At the end of the retention period, please contact the ATK Buyer before destroying/purging/disposing of anything required to be retained by this Quality Assurance Provision.

QAP-G4 *Inspection and/or Test Data Retention - 10 Years*

- A. The Supplier shall retain objective written evidence of hardware conformance to Purchase Order requirements for each shipment.

NOTE: All evidence is subject to review and/or audit by ATK at Seller's facility or at ATK.

- B. The following shall be retained for the period stated below if it is generated during the build of the part(s):
1. Any special selection test records,
 2. Conditioning (burn-in) test records,
 3. Lot acceptance test (LAT) records
 4. Sampling test records or any other test records used to determine item conformance
 5. Reports/certifications of chemical and/or physical analysis/test records that assure conformance to applicable specifications
- C. NOTE: When required by the applicable specifications, reports/certifications are to reflect actual test values. Reports/certifications of chemical and physical analyses/tests are to be fully traceable to the specifications, part numbers, the ATK Purchase Order and the specific shipment.
- D. If a Quality Attachment requiring any of the following is supplied by the buyer under separate cover, the data collected from the activity shall also be retained:
1. First Article Inspections/Tests (FAITs)
 2. Nondestructive tests
 3. SPC data (if applicable)
 4. Any data collected for a HAR
- E. Data sheets/test reports shall bear evidence of acceptance by Seller's signature (or stamp) and date signed.
1. The requested data is to be retained by the Seller for a period of ten (10) years after the date of the completion of this Purchase Order, unless otherwise specified in this Purchase Order.
 2. The requested data shall be made available for review by the ATK Field Engineer (FE) or designate when requested.
 3. The retention of inspection/test data, as provided herein, shall not modify or limit any representations, warranties, or commitments made elsewhere herein, or in any way affect the

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obligation of the Seller to perform strictly in accordance with the provisions of the Purchase Order.

4. At the end of the retention period, please contact the ATK Buyer before destroying/purging/disposing of anything required to be retained by this Quality Assurance Provision

QAP-GK Ammunition Data Cards

Each shipment of ammunition/explosive load lots (live or inert) shall include Ammunition Data Cards (DD Form 1650). Each ammunition/explosive load lot within a shipment requires a separate Ammunition Data Card. All Ammunition Data Cards shall comply with the requirements of the most current revision of MIL-STD-1168. No Government signature will be required on the Ammunition Data Card if any of the following conditions apply:

- A "Government Source" clause is not contained on the Purchase Order.
- A "Government Source Surveillance" clause is contained on the Purchase Order and the Government's Letter of Delegation does not require the signature.

In lieu of a Government signature, the Seller's Quality Assurance Manager shall complete blocks 20 through 22 and sign block 23 of the Ammunition Data Card. The signature of the Seller's Quality Assurance Manager will certify that:

- All required test and inspections were performed.
- The information listed on the data card is correct.
- The disposition indicated has been properly determined.

For rocket motors only, a Propulsion Unit Data Sheet may be submitted in lieu of an Ammunition Data Card with buyer's consent.

QAP-GZ Returned Material Failure Analysis Reports

Items procured under this Purchase Order which subsequently cause or contribute to a higher or next assembly test failure(s) shall be returned for failure confirmation and/or required rework.

The manufacturer is required to complete a failure analysis within twenty (20) working days of receipt of the hardware. Performance of the analysis shall be in accordance with the rework purchase order.

The failure analysis report must reference the ATK Purchase Order number, part and serial numbers (as applicable), cause and corrective action. A copy of the report is to be provided to the ATK source engineer (as applicable) at final inspection and mailed to the ATK Buyer/Subcontracts Administrator either prior to or at the time of shipment of reworked hardware.

QAP-H9 Tooling and/or Process Control

The Seller shall notify the Buyer if any of the following events occur or have occurred:

- Use of any tooling that has not been in production for a period of one year or more.

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- Rework, refurbishment or replacement of any portion of the tooling used to produce the item on this Purchase Order.
- Any change in the manufacturing process that changes or alters the configuration, composition, or physical properties of the item produced.

Upon notification, the Buyer will advise the Seller within one week if there is a need for production samples, or to perform a new mold, die or tooling analysis.

Buyer verification of acceptance shall not constitute acceptance of subsequent items or relieve the Seller from any obligation to perform in strict compliance with the provisions of this Purchase Order.

QAP-KS Lot Acceptance Test

Unless otherwise specified on the purchase order, the Seller shall provide Lot Acceptance Test (LAT) data in accordance with the applicable contract requirements with each shipment. The test data shall contain information such that the test data is traceable to the hardware tested and being presented for acceptance. Appropriate information such as part number, revision letter, Purchase Order number, supplier name, lot number/code, etc., shall be used. Unless otherwise stated, LAT samples and test data shall NOT be shipped in advance of the hardware.

The retention of the LAT data shall not modify or limit any representations, warranties, or commitments made elsewhere herein, or in any way affect the obligation of the Seller to perform strictly in accordance with the provisions of the Purchase Order.

Special instructions for chip manufacturers:

In all cases, sample selection for LAT shall be a random sample selected for the total population of chips comprising a single inspection lot. The actual sample size and any special criteria shall be in accordance with the associated specifications. In the case of an inspection lot comprised of more than one wafer, it is NOT acceptable to select all samples for a single wafer. NOTE: the use of a random number table is encouraged. Wafers from the same wafer/manufacturing lot which are NOT included in the population sample are not considered part of the qualified lot, i.e., the required random sampling for LAT as a new inspection lot.

QAP-NA Request for Changes to ATK- Controlled Engineering

ATK CONCURRENCE REQUIRED BEFORE PROCEEDING WITH CHANGES

This clause contains the requirements for the preparation and submission of proposed engineering changes to the items procured by this Purchase Order and to the applicable engineering drawings and specifications. This Quality Assurance Provision applies when the engineering package is ATK-controlled.

Requirements:

- A. Seller shall not incorporate any engineering change which affects ATK Buyer's, Seller's or Governmental specifications or engineering drawings prior to receipt of written authorization from ATK Buyer. Note: This includes any Acceptance Test Procedure or process specification

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changes or other technical requirements imposed for the acceptance of the procured hardware item.

- B. The Seller is not authorized to process hardware “at their risk” by incorporating the proposed engineering change into deliverable hardware prior to:
1. Submitting to the ATK Buyer the engineering change request either in the Supplier’s format or the ATK Supplier Request for Information or Change (SRIC), form F06023.
 2. Informing the ATK Buyer in writing that the Seller intends to proceed with the engineering change described “at their risk” prior to receiving the ATK Buyer’s full acceptance of the engineering change, and receiving in writing from the ATK Buyer permission to proceed “at their risk.”

NOTE: The ATK Buyer may direct the Seller not to proceed with the “at their risk” condition based on the likelihood that the engineering change request will not be accepted.

NOTE: Any advance coordination for the Seller proceeding “at their risk” does not constitute any implied agreement to the engineering change, and is for information and coordination purposes only. The Seller shall be liable for any costs incurred by the ATK Buyer, including any retrofit costs, which result from implementing the engineering change without approval.

- C. In the event an engineering change requires a revision or correction, the ATK Buyer will inform the Seller of this need, and the Seller shall submit the revision/correction in writing to the ATK Buyer.
- D. Unrelated engineering changes shall not be included in the same request. Each change needs to be submitted separately to the ATK Buyer.
- E. Each engineering change request from the Seller shall be accompanied and supported by marked copies of drawings, specifications, and other data required to justify and describe the engineering change.
1. In the event the ATK Buyer disapproves the engineering change request, the Seller will be notified in writing and will be given the reason(s) for the disapproval.
- F. After the ATK Buyer has approved the engineering change through the ATK Configuration Change Board (CCB) process, copies of all the released engineering documents revised to implement the engineering change shall be sent to the Seller.

Information Required When Submitting an Engineering Change Request: The following information must be submitted to the ATK Buyer when submitting a change request. If the request is being submitted in the Supplier’s format, this is the minimum information that must be in the request.

- Drawing number(s) and/or specifications affected by the change;
- Revision of the drawing(s) and/or specifications affected by the change;
- Supplier’s part numbers affected by the change;
- Engineering Change Classification (Class I or Class II);
- Description of the change;
- Reason for the change;

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- How the change effects deliveries;
- Estimated production effectivity point for the change (i.e. serial number, lot number, etc);
- Effect on the Purchase Order price; and
- Whether the change needs to be retrofitted into hardware already delivered.

QAP-NB Request for Changes to COTS (Commercial off-the-shelf), SCD (Source Control Drawing) or ICD (Interface Control Drawing) Drawings

NOTE: ATK CONCURRENCE IS REQUIRED BEFORE PROCEEDING WITH CHANGES

Purpose: States the requirements for preparation and submission of proposed engineering changes to the items procured by this Purchase Order and to the applicable engineering drawings and specifications. This Quality Assurance Provision applies when: (1) the engineering package is not ATK-controlled beyond a top-level Interface Control Drawing (ICD) plus accompanying specifications: (2) to Source Controlled Drawings or; (3) for Commercial-Off-The-Shelf (COTS) components. The Seller is required to inform the Buyer of all changes incorporated to the technical design, specifications, or acceptance process used to produce the hardware item, and to have acquired Buyer concurrence of change classification prior to implementation. All Class S-I changes require Buyer approval prior to implementation by the Seller.

Requirements:

- A. Prior to receipt of written authorization from the Buyer for Class S-I changes (or written concurrence from the Buyer that a proposed change is a Class S-II change), the Seller shall not incorporate any engineering change which affects Buyer's, Seller's or Governmental specifications or engineering drawings in any item of this Purchase Order. This includes any Acceptance Test Procedure or Process Specification changes or other technical requirement imposed towards the acceptance of the procured hardware item. The classification of the engineering change will be necessary to understand the implications of the design change.
- B. The Seller shall submit the engineering classification change either in the Seller's format or on the Supplier Request for Information or Change (SRIC), form F06023.
- C. The Seller shall not incorporate any Class S-I change prior to receipt of written authorization from the Buyer.
- D. For any Class S-I engineering change, the Seller is not authorized "at their risk" to process hardware to be delivered with the proposed change incorporated prior to:
 1. Having submitted the engineering classification change to the Buyer,
 2. Informing the Buyer in writing that they intend to proceed with the engineering change "at the their risk" prior to receiving the Buyer's full acceptance of the change, and
 3. Having received in writing that the Buyer understands the suggested engineering change.
Note: The Buyer may also direct the Seller at this time to not proceed with the "at their risk" condition based on the likelihood that the engineering change will not be accepted.

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- E. For any Class S-II engineering change, the Seller shall not incorporate the change prior to receipt of written concurrence of classification from the Buyer. Note: Class S-II changes do not require prior approval by the Buyer but do require Buyer concurrence in the classification.
- F. Any advance coordination for the Seller proceeding “at their risk” does not constitute any acceptance of risk or implied agreement to the change and is for information and coordination purposes only. The Seller shall be liable for any costs incurred by the Buyer, including any retrofit costs, which result from misclassifying the engineering change or from implementing the engineering change without authorization (Class S-I) or concurrence (Class S-II), as applicable.
- G. In the event that the engineering change requires a revision or correction, the Buyer will inform the Seller of this need, and the Seller shall submit the revision/correction in writing to the Buyer.
- H. Unrelated engineering changes shall not be covered in the same request. Each change needs to be submitted separately to the ATK Buyer.
- I. Class S-1 change requests shall be accompanied and supported by marked copies of drawings, specifications, and other data required to justify and describe the change. Class S-II change requests shall be sufficiently detailed to achieve concurrence in the classification.
- J. In the event that the Buyer disapproves the engineering change (Class S-I) or does not concur with the classification (Class S-II), the Seller will be so notified in writing and will be given the reasons for the disapproval / lack of concurrence.
- K. After the Buyer has approved (Class S-I) or concurred with (Class S-II) a change, the Seller is responsible to coordinate with the Buyer for related submittals or sharing of the revised engineering documents, drawings, specifications, qualification / integration testing plans and data, and related technical elements for design implementation within seven (7) days after the drawings/specifications are released.
- L. The Seller shall classify the engineering change in accordance with criteria listed in EIA 649 paragraphs 5.3.1.2 and 5.3.1.3 or in MIL-STD-973, paragraphs 5.4.2.2.1, 5.4.2.3, and 5.4.2.4, to identify the proposed change as either Class I (Class S-I) or as Class II (Class S-II).

Information Required When Submitting an Engineering Change Request:

- Drawing number(s) and/or specifications affected by the change;
- Revision of the drawing(s) and/or specifications affected by the change;
- Seller’s part numbers affected by the change;
- Engineering Change Classification (Class I or Class II);
- Description of the change;
- Reason for the change;
- How the change effects deliveries;
- Estimated production effectivity point for the change (i.e. serial number, lot number, etc);
- Effect on the Purchase Order price;
- Whether the change needs to be retrofitted into hardware already delivered.

QAP-NC *Request for Deviations And Waivers Process*

Purpose:

This clause states the requirements for the preparation and submission of requests for deviations or waivers from the applicable Buyer's and/or Seller's engineering drawings, specifications, Acceptance Test Procedures, Process Specifications, or other technical requirements imposed by the Purchase Order towards the acceptance of the procured hardware item.

Definitions:

- A. Deviation: A planned variance from the configuration documentation specified on the Purchase Order which requires specific written authorization granted prior to the manufacture of an item for a specific number of units or a specified period of time.
 - 1. Major Deviation: A deviation which affects the following:
 - 1.1. Cost
 - 1.2. Schedule
 - 1.3. Interface characteristics defined in the drawing or specification
 - 1.4. System requirements defined in the specification (if applicable)
 - 1.5. Safety
 - 2. Minor Deviation: Any deviation that is not a major deviation.
- B. Waiver: An unplanned variance from the configuration documentation specified on the Purchase Order requiring written authorization to accept an item which, during manufacture, or after having been submitted for inspection or acceptance (including test), is found to depart from specified requirements, but nevertheless is considered suitable for use "as is" or after repair by an approved method.
 - 1. Major Waiver: A waiver which affects the following:
 - 1.1. Cost
 - 1.2. Schedule
 - 1.3. Interface characteristics defined in the drawing or specification
 - 1.4. System requirements defined in the specification (if applicable)
 - 1.5. Safety
 - 2. Minor Waiver: Any waiver that is not a major waiver.

General Requirements.

- A. The Seller should refer to criteria provided within EIA 649, paragraph 5.3.4 or MIL-STD-973, paragraphs 5.4.3 (Deviations) and 5.4.4 (Waivers), as guidance documents towards Configuration Management (CM) techniques. These documents shall not be viewed as requirement documents.
- B. Authorized Deviations or Waivers are temporary departures from requirements and do not constitute a change to the configuration documentation identified on the Purchase Order. In the

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event that the engineering departure will be permanent or affect the remaining number of deliverable units of the product, an engineering change shall be processed in accordance with either QAP-NA or NB, as applicable.

- C. If acceptable, deviations or waivers shall be approved by the Buyer in writing in accordance with paragraphs IV or V below and, if deemed necessary by the Buyer due to retrofit requirements, etc., an equitable adjustment to the price and/or other terms of the Purchase Order shall be negotiated.
- D. Items shall not be delivered incorporating a known departure from documentation unless a request for a deviation or waiver has been processed in accordance with the requirements of this Quality Assurance Provision, or unless otherwise permitted by contractually authorized procedure.

Requirements for Deviations.

- A. Prior to manufacture of an item, if the Seller considers it necessary to depart temporarily from the mandatory requirements of the engineering drawings and specifications for the items procured by this Purchase Order, the Seller may request that a deviation be authorized. As an example, a deviation relating to an alternative material or process may be requested when it is claimed that the delivery schedule cannot be met unless the deviation is granted. A deviation would be chosen in lieu of an engineering change proposal because the documented design is superior to the alternative.
- B. Unless unusual circumstances exist, deviations affecting safety shall not be submitted. Suggested deviations which would affect service operation or maintenance should not be submitted or authorized as deviations. Such effects, if approved, should be covered by appropriate revisions in drawings and technical manuals, hence they should be proposed and processed as engineering change proposals in accordance with QAP-NA or NB that directs the applicable procedure for Engineering Changes.
- C. The Seller shall submit the request for deviation in the Seller's format. The minimal information, as stated in EIA 649, paragraph 5.3.4 or MIL-STD-973, paragraph 5.4.3, shall be provided on an "as needed" basis by the Buyer to evaluate the request with the Seller's request package.
- D. The Seller shall classify the request for deviation as either "Minor" or "Major" in accordance with the definitions stated above.
- E. Deviation Approval / Disapproval.
 - 1. The Seller shall not deliver items that incorporate a known deviation from the engineering drawings or specifications unless a deviation request has been submitted, approved by the Buyer, and the Seller has been notified of the approval in writing.
 - 2. In the event that the Buyer disapproves a deviation request, the Seller will be notified in writing and will be given the reasons for the disapproval.

Requirements for Waivers.

- A. An item which, through error during manufacture, does not conform to the engineering drawings and specifications for the items procured by this Purchase Order shall not be delivered to the Buyer unless a waiver has been authorized by the Buyer.

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1. A Material Review and disposition of minor nonconformances, in accordance with the definitions stated above, may be accomplished by the Seller to the extent authorized by the Buyer's Letter of Delegation.
- B. Unless unusual circumstances exist, waivers affecting safety shall not be submitted.
- C. When a need for a waiver has been identified, the Seller shall submit the request for waiver in the Seller's format. The minimal information, as stated in EIA 649, paragraph 5.3.4 or MIL-STD-973, paragraph 5.4.4, shall be provided on an "as needed" basis by the Buyer to evaluate the request with the Seller's request package.
- D. The Seller shall classify the request for waiver as either "Minor" or "Major" in accordance with the definitions stated above.
- E. Waiver Approval / Disapproval.
 1. Unless otherwise specified by the Purchase Order, Material Review and disposition of minor nonconformances, in accordance with the definitions stated above, may be accomplished by the Seller to the extent authorized by the Buyer's Letter of Delegation to the Seller.
 2. If an MRB is not authorized by the Buyer's Letter of Delegation to the Seller, or if the waiver is classified as "Major" in accordance with the definitions stated above, then the Seller shall not deliver items that incorporate a known waiver from the engineering drawings or specifications unless a waiver request has been submitted, approved by the Buyer, and the Seller has been notified of the approval in writing.
 3. In the event that the Buyer disapproves a waiver request, the Seller will be notified in writing and will be given the reasons for the disapproval

QAP-ND Supplier Qualification

Seller agrees to maintain strict controls to assure that, after the item(s) successfully pass the qualification, no changes will be made to any design, material, part, process, procedure, tooling or test equipment; nor shall they be altered, redesigned or replaced by any other design, material, part, process, procedure, tooling or test equipment, without prior written approval of the Buyer.

The definition of change does not include the following: editorial or administrative changes such as spelling or typographical errors, clarifications, personnel, maintenance, or equipment changes not affecting the qualified product. In addition, the items shall not be produced at a facility other than the Seller's original facility which produced the acceptable items, without prior written approval of the Buyer.

Upon receipt of such notice from the Seller, the Buyer shall have the right to direct the Seller to repeat all or part of the qualification at Seller's expense and to obtain from the Seller all data necessary to prove the acceptability of the proposed change. Notwithstanding the above provisions, Seller agrees that the items to be supplied hereunder will conform to all applicable procurement specifications and drawings, as amended.

QAP-NE *Requirements for Managing Key Characteristics*

If Key Characteristics (KCs) have been identified on the Purchase Order or Statement of Work, the Supplier is required to do the following:

- A. Identify the Key Processes that affect the KCs identified
- B. Develop, document, and implement a Process Control for all Key Processes.
- C. The Process Control Plan shall:
 - 1. Implement a method for statistical monitoring of identified Key Processes (The Supplier shall include justification when the application of statistical techniques would be a non-value added task (High Cpk values) and where the application of Statistical Process Control techniques is deemed impractical. Alternative methods of process control must be evaluated in such cases.);
 - 2. Require review and approval by both ATK and the Supplier;
 - 3. Document how each Key Process that affects a KC will be monitored and controlled; and
 - 4. List all Key Processes that are being offloaded and how they will be controlled and monitored at the subtier.

ATK shall conduct reviews at the Supplier's facility to review the Key Processes and to verify the implementation of the Supplier's Process Control Plan. At the Supplier's request, ATK will provide assistance to bring the Supplier into minimum compliance with this Quality Assurance Provision. Measurement or performance data pertaining to all key process parameters that are correlated with identified key quality characteristics shall be maintained by the Supplier and made available upon request in a timely manner to ATK.

ATK/Supplier Control Plan

- A. Introduction
 - 1. Objective:
 - 1.1. Develop a plan for controlling the Key Processes that control the Key Characteristics (KCs) of the ATK part numbers supplied by Supplier.
 - 2. Scope
 - 2.1. The following are the conditions that require a review/revision to this plan:
 - a. A change to facility/processing equipment that affects a Key Process: – A change in or to tools, test equipment, measuring or aligning fixtures, processing tanks, equipment, machinery, machine set-ups, or other plant manufacturing equipment, etc., used to manufacture, process, assemble, inspect and/or test the item.
 - b. A change to a procedure(s) that affects a Key Process: – A change in or to the methods, procedures, planning and/or sequencing used in or applicable to the manufacturing, processing, assembly, inspection and/or test of the item.

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- c. A change in location: –A change of the site where some or all of the work on items is being performed. It may be as little as moving an assembly line, and it may or may not involve a change in facilities, procedures, personnel and/or processing sources.
 - d. A change in the source or processing that affects a Key Process: – A change from an outside processing source to within the Seller's facility, from within the Seller's facility to an outside processing source, or from one outside processing source to another.
- 2.2. A Deviation, Waiver, or engineering change which affects a Key Process:

B. Responsibilities

1. ATK and Supplier will maintain a list of the names of the individuals that hold the titles below along with phone numbers, email addresses, and fax numbers for each.
2. Supplier Responsibilities:
 - 2.1. Supplier is responsible for ensuring the activities required by the Process Control Plan are planned, implemented, controlled, and their progress monitored at Supplier.
 - 2.2. Supplier is responsible for communicating the requirements of the Process Control Plan to all affected Departments, Subcontractors, and Suppliers, and is also responsible for contacting the ATK Buyer when any problems arise in meeting the requirements of the Process Control Plan.
 - 2.3. Supplier is responsible for reviewing the results of audits performed by ATK at Supplier and for obtaining cause and corrective action for any findings.
3. ATK Responsibilities:
 - 3.1. The Supplier Quality Engineer for the part(s) covered by this Process Control Plan is responsible for ensuring the activities required by the Plan are planned, implemented, controlled, and their progress monitored at ATK.
 - 3.2. The Supplier Quality Engineer for the part(s) covered by this Process Control Plan is responsible for communicating the requirements of the Plan to all affected Departments, Subcontractors, and Suppliers, and is also responsible for ensuring any problems that arise in meeting this Plan are resolved.
 - 3.3. The Supplier Quality Engineer and/or the Field Engineer for the part(s) covered by this Process Control Plan are responsible for conducting any audits that are required by it, issuing a Supplier Corrective Action Request (SCAR) for any findings, and for reviewing and accepting/rejecting Supplier responses to any SCARs issued.

QAP-NF Buyer's Hardware Acceptance Review At Seller's Facility

- A. A Hardware Acceptance Review (HAR) of items ordered under this purchase order is required.
- B. The HAR will be performed at the Seller's facility by the Buyer's representatives.
- C. The purpose of the HAR is to review the manufacturing build history, processes and hardware in order to assure compliance with the Purchase Order.
- D. During the HAR, the following shall be verified/reviewed as a minimum:

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1. Hardware is built to applicable Revision
 - 1.1. Drawing status
 - 1.2. As built vs. As required
 - 1.3. Deviations/Waivers
2. Review Acceptance Test History
 - 2.1. Test matrix - Required vs. Measured: Compliance
 - 2.2. Test data - Summary
 - 2.3. Test failure reports and corrective actions
3. Review Hardware Status
 - 3.1. Manufacturing history records
 - 3.2. Inspection status
 - 3.3. Nonconforming material status/disposition
 - 3.4. Open manufacturing issues
 - 3.5. Other issues
- E. At the completion of the HAR, the Buyer's representatives will make the determination of whether to accept, reject (action items assigned), or allow limited acceptance (action items assigned).
- F. Seller shall not ship items without an approved Hardware Acceptance Review unless authorized in writing by the Buyer.
- G. Seller shall notify the Buyer at least ten (10) business days in advance of the products ready to ship date.
- H. Seller shall provide the HAR team a copy of the following:
 1. All assembly history records
 2. All work instructions that affect the hardware
 3. As built configuration
 4. Any failure investigations and corrective actions
 5. All available test data
 6. The purchase order (P.O) and associated technical data package
 7. Material review actions, test problem reports and associated corrective actions
- I. HAR acceptance shall not constitute final acceptance of the items and shall not modify or limit any representations, warranties, or commitments made elsewhere or in any way affect the obligations of the Seller to perform strictly in accordance with the provisions of the Purchase Order. The first HAR will include a First Article Inspection as defined in QAP-QF.
- J. The supplier is required to notify ATK of any change of significance that may require another FAI/T to be conducted on the first production item manufactured after such change. Such notifications shall

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be submitted to the ATK Buyer. The following definitions will be used in evaluating the type and significance of the change:

- 1.1. Change of Facility/Processing Equipment: – A change in or to tools, test equipment, measuring or aligning fixtures, processing tanks, equipment, machinery, machine set-ups, or other plant manufacturing equipment, etc., used to manufacture, process, assemble, inspect and/or test the item.
- 1.2. Change to Procedures:: – A change in or to the methods, procedures, planning and/or sequencing used in or applicable to the manufacturing, processing, assembly, inspection and/or test of the item.
- 1.3. Change in Location: – A change in location of the site where some or all of the work on items is being performed. It may be as little as moving an assembly fixture. It may or may not involve a change in facilities, procedures, personnel and/or processing sources.
- 1.4. A Change In Source Of Processing: – A change from an outside processing source to within the Seller's facility, from within the Seller's facility to an outside processing source, or from one outside processing source to another.
- 1.5. Interruption of Manufacturing: – A complete FAI/T will be required prior to shipment of hardware if one year or more has elapsed since the last manufactured item was produced.

QAP-OSC Requirements for the Orion Program

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 ATK, the Prime Contractor and the Government.

Over the life of the program, the Subcontractor shall recognize the right of ATK, 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 ATK visitors and/or residents. ATK may wish to have on-site residents where the Subcontractor's work is performed. The responsibilities of ATK representatives will be clearly defined by ATK.

QAP-QB Reporting a Defect on a Critical Safety Characteristic

- A. When a nonconformance is found on a Critical Safety Characteristic (CSC), the Supplier must:
1. Immediately stop production of the part, and

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2. Notify ATK by email of the nonconformance within one working day
- B. The following information must be in the notification email to ATK:
1. Supplier name
 2. ATK:
 - Part Number
 - Part Nomenclature
 - Drawing Number
 - Drawing Revision
 3. Supplier:
 - Part Number (if different from ATK part number)
 - Part Nomenclature (if different from ATK nomenclature)
 - Drawing Number(s)
 - Drawing Revision
 4. Lot identification and/or Date Code (if applicable)
 5. Fencing of the defect quantity as follows:
 - Date suspect defect occurred
 - Date production stopped
 - Serial numbers, date codes, or lot identification that are defective at Supplier's facility
 - Total number of parts found defective at Supplier's facility
 - Serial numbers, date codes, or lot identification with defect shipped to ATK
 - Total number of parts found defective that have been shipped to ATK
- C. The Supplier may not restart production until formal restart notification is sent by the ATK Buyer.
- D. The requirements of this Quality Assurance Provision must be flowed down to any Subtier Supplier whose processes affect a CSC.

QAP-QC Configuration Certification

Seller is required to provide as built configuration data. Include:

- Purchase Order Number
- P.O. Rev. Ltr
- Amendments To PO
- Part Number
- Drawing Rev Ltr

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- Specification Number
- Specification Rev. Ltr.
- Test Specification Number
- Test Specification Rev. Ltr
- Changes, Deviations, Waivers

Certify that all serialized items listed above were manufactured, inspected/tested to the exact configuration listed.

Include signature of Quality Manager or Authorized Designee and Date.

QAP-QF First Article Inspection/Test Requirements (FAIT)

The purpose of an FAIT is to verify that planning, work instructions, material processing systems and controls, tools and fixtures, inspection/test equipment, and personnel capability will produce an item in compliance with applicable purchase order, work statement, and specification requirements.

A. General Requirements:

1. The Supplier will develop an FAIT plan which documents how they will perform the FAIT requirements stated here. The FAIT shall be done on all ATK and Supplier build to print items, and it shall not be initiated prior to ATK signature approval of the plan.
2. The FAIT process shall be completed on the first item from the first production lot to complete the total manufacturing process. The size of the first production lot will not exceed the lesser of one sixth of the P.O. quantity or 50 ship sets, unless otherwise approved by ATK. Remaining production lots shall not be initiated until the FAIT has been completed and approved by ATK.
3. Items such as QPL parts, standard bolts, nuts, washers, etc., are not considered items manufactured by the Supplier. Supplier certification of conformance on file is acceptable.
4. Any proposed deviation to these FAIT requirements shall be submitted in writing to the ATK Buyer and approved by ATK.
5. For parts that require ATK Source Inspection, an ATK Field Engineer (FE) may witness and/or participate in the supplier FAIT.
 - 5.1. The Supplier shall advise the FE seven (7) working days in advance of the scheduled FAIT.
 - 5.2. When the FAIT is witnessed by the FE or designate at the Supplier's facility, the FE or designate will ensure the FAIT is performed per the requirements of this document.
 - 5.3. The Supplier will perform the FAIT and submit the FAIT Report to ATK prior to the start of the next manufacturing lot.
6. When drawing attributes are changed or added, the Supplier will complete a Delta FAIT for the first production part of the new configuration and process it in accordance with the requirements of this procedure.

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7. First Article Testing - If an ATP/LAT (Acceptance Test Procedure/Lot Acceptance Test) is imposed, all testing shall be verified to ATK-approved procedures. Testing, at a minimum, shall consist of box level unless otherwise specified by ATK. When automated test equipment is used, a copy of the automated printout must be attached to the FAIT report.
8. The Supplier is required to notify ATK of any change of significance that may require another FAIT to be conducted on the first production item manufactured after such change. Such notifications shall be submitted to the Buyer. The following definitions will be used in evaluating the type and significance of the change:
 - 8.1. Change of Facility/Processing Equipment: A change in or to tools, test equipment, measuring, or aligning fixtures, processing tanks, or equipment, machinery, machine set-ups, other plant manufacturing equipment, etc., used to manufacture, process, assemble, inspect and/or test the item.
 - 8.2. Change to Procedures: A change in or to the methods, procedures, material, planning and/or sequencing used in or applicable to the manufacturing, processing, assembly, inspection and/or test of an item.
 - 8.3. Change in Location: A change in location of the site where some or all of the work on items is being performed. It may be as little as moving an assembly fixture. It may or may not involve a change in facilities, procedures, personnel and/or processing sources.
 - 8.4. Change in Source or Processing: Such changes may be from an outside processing source to within the Supplier's facility, from within the Supplier's facility to an outside processing source, from one outside processing source to another, or from ATK furnished material to Supplier procured material.
 - 8.5. Interruption of Production: A complete FAIT will be required prior to shipment of hardware if 6 months or more has elapsed since the last production item was produced.

B. Inspection / Validation Requirements:

1. In addition to inspection/test of all parameters in the technical data package, the following are to be considered an integral part of the FAIT. One item will be inspected to determine compliance, as applicable, of:
 - 1.1. Configuration of the item/component, as built, complies with all requirements of the drawing/specification, the approved supplier drawing/ specification and the P.O. and work statement.
 - 1.2. Accuracy and adequacy of planning.
 - 1.3. Correct material and/or items were used during fabrication and/or assembly. Unless otherwise specified by P.O., engineering drawing or specification, verification of material by the Supplier must be in the form of physical and chemical analysis. Properly authorized certification from the manufacturer/distributor is acceptable.
 - 1.4. Casting and forging FAIT samples shall be a completely processed item including heat treatment, straightening and nondestructive testing.

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- 1.5. When required by specification, grain flow of forgings must be verified from a sample cut from the forging and/or analysis of grain flow photographs furnished by the Supplier.
- 1.6. Configuration is identified and controlled by Purchase Order
- 1.7. Approved suppliers/processors were used and are identified.
- 1.8. Adequacy and availability of check gages/fixtures.
- 1.9. Capability of tooling to produce items.
- 1.10. All additional P.O. requirements are fulfilled.

C. Documentation of Discrepancies / Nonconformances:

1. All nonconformances will be documented to the appropriate supplier Material Review form and the document number noted in the FAIT report
2. A DELTA FAIT WILL BE REQUIRED FOR ANY DISCREPANCY LISTED THAT CAUSES REJECTION OF THE FAIT.
3. Discovery of any condition that precludes conformance to applicable requirements shall result in immediate supplier corrective action. Supplier shall not continue production without ATK approval. Nonconformance shall preclude acceptance and/or delivery without formal authorization.

D. Reporting Requirements:

1. The Supplier will completely document the FAIT.
2. Drawing Notes Check Sheet - used for recording compliance with all the pertinent notes of the applicable engineering drawing, such as heat treatment, nondestructive testing, and all other special requirements of the drawing.
3. Inspection Dimensional Check Sheet - used for recording all the dimensions of the item as specified by the applicable engineering drawing. Recording of data must be in a permanent manner. White-out is not acceptable.
4. Corrective action for each nonconformance shall be documented in the FAIT including its effectivity stated by date and number of parts produced prior to incorporation.
5. The FE or designate will indicate concurrence of FAIT by signing, stamping, and dating the report.
6. The Supplier is responsible for assuring all FAIT data, including material and process certification, is legible and is of the quality for clear reproduction.
7. Inspection stamps must be applied to each dimensional record of acceptance in the acceptance block. If the stamps are smeared and/or not legible, the Supplier's inspector must record his or her stamp number in permanent ink, initial, and date. The following methods are not considered objective evidence of acceptance and will be rejected and corrective action requested:
 - 7.1. Stamping the first and last inspection data input per page and drawing a connecting line to indicate acceptance for all inspections accomplished is not acceptable.

7.2. Check marks in lieu of inspection stamps are not acceptable.

QAP-QH *Government and/or Customer Surveillance*

During performance of Purchase Order requirements, your Quality Program/Inspection System and Manufacturing Processes are subject to review, analysis and verification by ATK or other ATK Customers when approved by ATK.

Government mandatory product inspections, process buyoffs, release of product prior to shipment or final inspections may be required when deemed necessary by the Government Representative or when directed by the delegating authority.

Contact the Government Representative who normally services your plant if QAP-003B is imposed. Government surveillance does not constitute product acceptance or certification of systems or processes by either Buyer or Government, and does not relieve the Seller of any of the requirements of the Purchase Order.

QAP-RB *Conformance Certification*

The Seller shall provide certification with each shipment that all quality, conformance, and other applicable requirements have been met in accordance with the specification(s) stated in the item description/part number appearing on this Purchase Order. The certification shall be signed (or duly authenticated via approved alternate means) by the corporate officer who has management responsibility for the production of the product, or other designated responsible individual.

As a minimum, the following information shall be included in the conformance certification:

- Purchase Order Number (ATK P.O. number)
- Purchased Part Number (as shown on the P.O.)
- Manufacturer's P/N, if different from above
- Manufacturer (NOT Distributor)
- Authorized Signature per the above

**QAP-RD *Mission Assurance Supplier Management Process (SMP):
Source Inspection***

The buyer's procurement representative must be notified 5 working days in advance of the shipment. Supplier shall not ship items without:

- A. The ATK Quality Engineer shall conduct a Source Inspection/Test, review all related data and certifications, and complete the Source Inspection Report, F92049, unless one of the following has occurred:
 1. A source inspection waiver, authorized by the ATK Quality Engineer, has been received by the Seller from the ATK Buyer, or
 2. The ATK Quality Engineer has issued an Authorization-to-Ship form, F98030, per QAP-099.

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- B. Seller shall not ship items suspended by the ATK Quality Engineer unless authorized in writing by the ATK Buyer with concurrence from the ATK Quality Engineer.

PROCUREMENT PACKAGE REQUIREMENT

Upon acceptance of the PO, the Supplier shall establish and maintain a procurement package for the PO which shall be made available to the ATK Quality Engineer during each visit. The package shall contain as applicable the following listed items:

- Purchase Order and Change Notices
- Current configuration of drawings/specifications
- Supplier planning documents (or supplemental documentation)
- Current Certificates of Conformance
- Subcontract data items; i.e. Acceptance Test Procedure (ATP), test/inspection data, etc.
- Qualification test approval letter
- First article approval

The surveillance/inspection/test provided herein shall not constitute final acceptance of the items and shall not modify or limit any representations, warranties or commitments made elsewhere or in any way affect the obligations of the Seller to perform strictly in accordance with the provisions of the PO.

QAP-SA Foreign Object Damage (FOD) Prevention

The Seller shall establish and maintain an effective Foreign Object Damage (FOD) Prevention Program to reduce FOD using NAS412 as a guideline.

The Seller's program shall utilize effective FOD prevention practices. The program shall be proportional to the sensitivity of the design of the product(s) to FOD, as well as, to the FOD generating potential of the manufacturing methods.

The written procedures or policies developed by the Seller shall be subject to review and audit by the Buyer and/or government representative, and disapproval when the Seller's procedures or policies do not accomplish their objectives.

QAP-SB Soldering/Plating Requirements

Soldered or plated electronic assemblies, harnesses, cables, and components, as well as electrical, electromechanical, and mechanical piece parts and assemblies, including the internal fabrication of hardware, delivered to ATK under the provisions of this Purchase Order shall not have pure tin finishes. Additionally, any tin-lead (SnPb) plating or solder process/processing shall result in a finish of no less than 3% lead composition.

Note: This applies to component leads and terminations, carriers, bodies, cages, brackets, housings, mechanical items, hardware (nuts, screws, bolts), etc. This does not apply to MIL-SPEC Parts or ATK Drawings that allow the use of Tin (Sn) with less than 3% Lead (Pb).

A current listing of surface finishes that are exempt from this requirement can be obtained from ATK Buyer.

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Seller shall provide a Certificate of Conformance (C of C) with each shipment. The C of C shall mean that the Seller or Seller's agent has verified that delivered product meets the above listed composition requirements, or the material meets at least one of the following provisions:

- Seller or Seller's agent has contacted the Original Equipment Manufacturer (OEM) and verified that the specific Mfr / Lot Date Code of delivered product meets the specified minimum lead (Pb) requirement if Tin (Sn) is present in the product.
- Seller or Seller's Subcontractor has verified by actual sample testing (X-ray Fluorescence testing is preferred) or other industry acceptable method that a minimum of 3% lead (Pb) is present in any process that uses tin (Sn).

Seller shall be responsible for managing the compliance with this requirement with subcontractors or sub-tier suppliers, and provide evidence of the appropriate flow-down and management of this requirement to the satisfaction of the Buyer or designate.

Unless otherwise specified in this Quality Assurance Provision, all exceptions must be authorized in writing by the ATK Buyer.

QAP-UA Mission Assurance Traceability Requirements

The Seller and/or Subcontractor shall develop and maintain records for traceability and lot control for all Electrical, Electronic, and Electromechanical (EEE) parts, including Commercial Off The Shelf (COTS) material furnished under this Purchase Order. Traceability data shall be provided to ATK on the packing sheet or C of C.

For Assemblies:

- Traceability to the serial number of an individual device or to a lower level assembly shall be required on all EEE parts contained in an assembly or subassembly unless a specific list is specified by the Buyer or designated purchasing agent.
- Traceability data for EEE parts (including COTS) shall be maintained in the manufacturing and processing records and contain original receiving report number from the procurement source, part number and revision, serial number (if applicable), Lot Code and/or Date Code, Purchasing Order number, Original Equipment Manufacturer (OEM) Number and/or Cage Code.
- The Seller shall ensure markings for small devices are recorded in the manufacturing and processing records prior to use.

For Purchased items ("Piece Parts", including Electrical, Electronic, Electromechanical and Micro-Electronic Components, both "Active" and "Passive"):

- Traceability data for EEE parts (including COTS) shall be maintained in the inventory, manufacturing and processing records and contain original receiving report number from the procurement source, part number and revision, serial number (if applicable), Lot Code and/or Date Code, Purchasing Order number, Original Equipment Manufacturer (OEM) Number and/or Cage Code.

QAP-VA, Surge Test of Tantalum Capacitors

SURGE OPTION "A" OR BETTER

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General

Each surface mount tantalum capacitor furnished to ATK shall be subjected to and pass surge current testing in accordance with the conditions specified below. This 100% test requirement shall apply to loose components (piece parts), circuit card assemblies (CCAs), modules and any other type of hardware or product that contains surface mount tantalum capacitors. If Seller is unable to comply with these requirements, Seller shall contact Buyer for further direction prior to proceeding.

Flowdown Requirements

Seller shall be responsible for communicating this requirement to subcontractors or sub-tier suppliers as required to assure that non-surge current screened product is not delivered.

Certificate Of Conformance

Seller shall provide a signed Certificate of Conformance or an equivalent signed document that specifies that delivered product contains only surface mount tantalum capacitors that have been subjected to and passed surge current testing. This Certificate of Conformance or equivalent document proving the passing of surge current testing also requires at a minimum the following information:

- Manufacturer Name
- Lot/ Date Code
- Manufacturer P/N
- Country of Origin
- Quantity

Screening Conditions

All surface mount tantalum capacitors shall be subjected to and pass surge current testing per MIL-PRF-55365F, Pg. 22, paragraph 4.7.16, Surge Option "A" or better.