DOC 253-01
UNITED LAUNCH ALLIANCE'S QUALITY CLAUSES

Notwithstanding any other provisions, all Work furnished hereunder is subject to the General Provisions of this Contract and Special Provisions of Quality Assurance Clause(s) when indicated by Quality Clause Code(s).

Statements of Work may provide additional and/or conflicting direction with the Quality Assurance Clauses listed in Doc 253-01. Please address any discrepancies with your ULA Procurement Representative.

Work defined in this Contract will NOT be accepted by ULA if the CONTRACTOR fails to submit certification, documentation, test data, and reports specified herein.

Quality Clause Cross Reference Instructions:
Purchase Orders generated from SAP list the applicable Quality Codes, the Quality Clause Title and Text are not listed. Go to "Edit" and "Find". Type the Quality Code and select "Find Next"

If you have any questions regarding the use of this list, please contact the ULA Procurement Representative as identified on this Contract.

The following Quality Codes have been retired – **QC005B**, QC007, QC009, QC011, QC017, QC018, QC019, QC020, QC023, QC024, QC025, QC026, QC032, QC036, QC037, QC039, QC040, QC044, QC049, QC052, QC053, QC054, QC055, QC056, QC057, QC058, QCO60, QCO61, QCO62, QC063, QCO65, QC067, QC069, **QC071**, QC072, QC073, QC075, QC078, QC080, QC082, QC086, **QC088**, **QC089**, **QC090**, QC091, **QC094**, QC095, and QC101**.**

Definitions:
"CONTRACTOR" means the party identified on the face of this Contract with whom ULA is contracting. CONTRACTOR shall mean the same as supplier, seller, vendor or other such type designation.

"ULA Procurement Representative" means the person authorized by ULA's cognizant procurement organization to administer and/or execute this Contract.

"Subcontractor" means CONTRACTOR's vendors, sellers, or suppliers at any tier.

"ULA" hereinafter will mean United Launch Alliance, LLC as identified on the face of the Contract.

"Work", for the purposes of this Doc 253-01, means all required labor, articles, materials, supplies, goods, services and deliverable data, information, records and, materials embodying such information constituting the subject matter of this Contract.

"Quality Clause Data Item" refers to a document or data set called for by one of the following Quality Clauses (clauses also demarcated by the highlighting of the clause code in the body of this document) and shall be submitted into ULA's Supplier Data Transmittal (SDT) system and be compatible with Microsoft Office products and/or Adobe Acrobat. (or comparable PDF viewing and editing application):
QC004, QC005, QC008, QC010, QC012A, QC012B, QC013, QC014, QC015, QC016, QC033, QC034, QC035, QC041, QC042, QC047, QC051, QC077, QC079, QC081, QC083, QC084, QC085, QC087, QC092, QC093, QC096, QC098, QC100, QC102, QC103 and QC105.

Reference Documents:

ISO 9001 Quality Systems-Model for Quality Assurance in Design, Development, Production, Installation, and Servicing
SAE AS9100 Model for Quality Assurance in Design/Development, Production, Installation, and Servicing
SAE AS9003 Inspection and Test Quality System
SAE AS9102 Aerospace First Article Inspection Requirement
ISO 17025 General Requirements for the Competence of Testing and Calibration Laboratories
NCSL/ANSI Z540.3 Requirements for the Calibration of Measuring and Test Equipment
MIL-STD-1686 Electronic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies, and Equipment
SAE AS9102 Aerospace First Article Inspection Requirement
MIL-STD-453 Inspection, Radiographic
ASTM-E-1742 Standard Practice for Radiographic Examination

Quality Clause Code	Clause Name	Clause Text
QC001	ACCEPTANCE AT DESTINATION	Work under this Contract is subject to final acceptance at a ULA facility or a facility designated by ULA as stated in the Contract.
QC002	SOURCE ACCEPTANCE	Source acceptance of all Contract and product requirements is subject to review by ULA's Procurement Quality Assurance Representative (PQAR) at the CONTRACTOR's facility before shipment. Upon receipt of Contract or additional Contract line items, CONTRACTOR shall notify the PQAR through ULA's Automated Source Activity Planning (ASAP) system an 'Initial Visit' is required. This visit shall establish mandatory surveillance points. CONTRACTOR shall notify the PQAR through ASAP 3 business days before the Work is available for review. The CONTRACTOR shall provide necessary facilities, assistance, and all quality records for inspection. PQAR shall be indicated on the CONTRACTOR's shipping document as authorization to ship. Mandatory in-process inspection points must not be bypassed. If the CONTRACTOR cannot access ASAP, they must immediately contact the ULA Procurement Representative. Work under this Contract is subject to final acceptance at a ULA facility or a facility designated by ULA as stated in the Contract.
QC003	TOOLING DESIGN SOURCE ACCEPTANCE	Before shipment of any tooling, the supplier shall promptly notify the designated ULA POC as specified in the PO text. Tool design must be approved by ULA Tool Engineering, and final Tooling Quality Assurance approval is required before fabrication begins. The supplier shall notify ULA at least 3 days before the tooling is ready for final inspection. The supplier must provide necessary facilities, assistance, and all required quality records for tooling inspection. Approval shall be indicated on the supplier's shipping document as authorization to ship. Final inspection may be completed onsite or via email at ULA Tooling Quality's discretion. The supplier is responsible for ensuring both the tool design inspection and final post-fabrication inspection are completed and not bypassed. Work under this Contract is subject to final acceptance at a ULA facility or a facility designated by ULA as stated in the Contract.

Quality Clause Code	Clause Name	Clause Text
QC004	CERTIFICATE OF CONFORMANCE	CONTRACTOR shall submit a Certificate of Conformance (CoC) confirming the Work conforms to the Contract requirements. The Certificate of Conformance shall be signed with title and dated by an authorized CONTRACTOR representative. The CoC shall include the following information: 1) Name and Address of Manufacturer 2) Contract number 3) Part number with revision 4) Quantity 5) Manufacturer’s lot, heat, batch, date code, and/or serial number (if applicable) Indicate if Work is furnished by ULA; applicable material test results, process certifications and inspection records shall be presented upon ULA's request. For Subcontractor manufactured parts, CONTRACTOR shall submit CONTRACTOR’s CoC, as above, and the Subcontractor manufacturer’s CoC.
QC005	CERTIFICATE OF CONFORMANCE-ULA FURNISHED MATERIAL	This Contract contains ULA furnished material. CONTRACTOR shall submit a Certificate of Conformance (CoC) stating the Work furnished conforms to Contract requirements and ULA furnished material was used. The CoC shall be signed with title and dated by an authorized CONTRACTOR representative. If ULA furnished material is nonconforming, the CONTRACTOR shall control it to prevent use and obtain disposition instructions and approval from the ULA Procurement Representative. Applicable material test results, process certifications and inspection records shall be supplied upon ULA's request. Example CoC statement: “All items conform to the Contract, drawings, specifications, and applicable documentation. Material was furnished by ULA, with no substitutions or deviations without ULA authorization.” Authorized substitutions or deviations must note the source, nature, and authorization date.

Quality Clause Code	Clause Name	Clause Text
QC008	CERTIFICATE OF CONFORMANCE - HIGH STRENGTH FASTENERS	This Contract contains high-strength fasteners with specified ultimate tensile strengths equal to or greater than 160 ksi, or shear strengths equal to or greater than 95 ksi, and nominal diameters equal to or greater than 3/16 inch. A Certificate of Conformance (CoC) and Manufacturer's Test Reports shall be submitted to ULA. The CoC shall attest the fasteners & all associated processes conform to the specification requirements; the CoC will be signed with title and dated by an authorized CONTRACTOR representative. The following information will be included, at a minimum: 1) Name and address of the manufacturer 2) CONTRACTOR's name, if CONTRACTOR is not manufacturer 3) ULA Contract Number 4) Part number with revision 5) Manufacturer's production order/lot number 6) Manufacturer's Test Report: a. Raw material specification(s), including class, type, or grade as applicable b. Raw material heat, lot, or melt number c. Name of raw material producer d. Name of test laboratory, if not manufacturer e. Chemical analysis report as defined by the applicable specification f. Mechanical test report as defined by the applicable specification (i.e. tensile and/or single/double shear strength) g. Metallurgical examination report as defined by the applicable specification (i.e. microstructure and/or macrostructure) h. Non-destructive test results when required by applicable specification (i.e. dye penetrant, magnetic particle, etc.) CONTRACTOR shall be responsible for ensuring items in this order are packaged to preserve dimensional integrity, contamination and corrosion are prevented, and no physical damage occurs to the threads during shipment. The preferred method, when size permits, will be to individually sleeve the threaded portion of the fastener. Bulk packaging of unprotected threads is prohibited.
QC010	CERTIFICATE OF CONFORMANCE - COMMERCIAL ITEM, MATERIAL, OR PROCESS	CONTRACTOR shall submit a Certificate of Conformance (CoC) to attest the Work conforms to the Contract requirements. Applicable material test results, process certifications and inspection records shall be presented upon ULA's request. Certification shall include name of the CONTRACTOR, quantity shipped, and Contract Number. The CoC shall be signed with title and dated by an authorized CONTRACTOR representative. An example of an acceptable CoC is as follows: "This certifies all items noted are in conformance with the Contract, drawings, specification and other applicable documentation. All applicable process certifications, chemical and physical test reports are on file at this facility and are available for ULA review."

Quality Clause Code	Clause Name	Clause Text
QC012A	CERTIFICATE OF CONFORMANCE - RAW MATERIAL	CONTRACTOR shall submit a Certificate of Conformance (CoC) stating the raw materials shipped, or used in the manufacture of the Work, were tested, inspected, and in compliance with the applicable parts and material specifications. The CoC shall be signed with title and dated by an authorized CONTRACTOR representative and include the following information at a minimum: 1) Name and address of ULA CONTRACTOR 2) ULA Contract number 3) ULA Part number, with revision 4) Manufacturer's lot identification number of the Work 5) Name of raw material manufacturer 6) Raw material specification with revision 7) Raw material heat/lot/batch number and 8) If applicable, raw material total lot weight If CONTRACTOR supplies converted material produced by a raw material manufacturer, CONTRACTOR is responsible for ensuring performance of all physical tests where the manufacturing process has altered the properties from what had been certified by the raw material manufacturer. The data submitted must also reflect the altered condition of the material. Upon ULA’s request, CONTRACTOR shall provide any applicable material test results, process certifications, and inspection records pertaining to Work submitted.

Quality Clause Code	Clause Name	Clause Text
QC012B	MILL REPORT AND CERTIFICATE OF CONFORMANCE - RAW MATERIAL	CONTRACTOR shall submit a Certificate of Conformance (CoC) stating the raw materials shipped, or used in the manufacture of the Work, were tested, inspected, and in compliance with the applicable parts and material specifications. The CoC shall be signed with title and dated by an authorized CONTRACTOR representative and include the following information at a minimum: 1) Name and address of ULA CONTRACTOR 2) ULA Contract number 3) ULA Part number with revision 4) Manufacturer's lot identification number of the Work 5) Name of raw material manufacturer 6) Raw material specification with revision 7) Raw material heat/lot/batch number 8) Raw Material total lot weight as applicable Additionally, CONTRACTOR shall include the raw material manufacturer's test report (e.g., mil test report) which has: a) The specification with revision to which the material has been tested and/or inspected, and the identification of the material lot to which it applies. b) The quantitative limits for chemical, mechanical, and/or physical properties allowed by specification, and the actual test/inspection values obtained. If CONTRACTOR supplies converted material produced by a raw material manufacturer, CONTRACTOR is responsible for ensuring performance of all physical tests where the manufacturing process has altered the properties from what had been certified by the raw material manufacturer. The data submitted must also reflect the altered condition of the material.
QC013	CERTIFICATE OF CONFORMANCE - NDT TEST REPORT	This Contract requires Nondestructive Testing (NDT) to evaluate the properties of material or parts without causing damage. CONTRACTOR shall submit a Certificate of Conformance (CoC) listing the NDT specification with revision tested to and must include the inspector's signature or stamp. The CoC shall be signed and dated by an authorized CONTRACTOR representative.

Quality Clause Code	Clause Name	Clause Text
QC014	CERTIFICATE OF CONFORMANCE - SPECIAL PROCESS APPROVAL	This Contract requires Special Processing. The CONTRACTOR and/or CONTRACTOR's subcontract source **must** be approved by ULA at the time of process performance OR be listed as approved for: "Q4M - SUPPLIER APPROVES OWN SPECIAL PROCESSORS" when providing build-to-specification hardware where the supplier owns the drawings. Q4M does NOT apply to build-to-print procurement where ULA owns the drawings, nor can a supplier approve their own special processing. A list of ULA approved suppliers/processors and their associated processes can be accessed here while logged into the ULA virtual network. Reach out to your ULA Procurement Representative for assistance. The CONTRACTOR shall include this clause, including this paragraph, in all Subcontracts. A Certificate of Conformance and/or equivalent Process Certificate, from CONTRACTOR and all Subcontractors performing Special Processing Work under this Contract, shall be submitted to ULA. The certificate shall be traceable to a ULA Contract number and include: 1) Part number with revision 2) Serial and/or lot number(s) (as applicable) 3) Process specification number with revision 4) Processing date 5) Name and address of the processor(s) performing each process 6) A certification stating the special process was performed per the applicable drawing/specification requirements 7) Signature with title and dated by an authorized representative of the CONTRACTOR and/or CONTRACTOR's subcontract source ULA's approval of any processor does not relieve CONTRACTOR of CONTRACTOR's requirement to comply with the terms of this Contract.
QC015	100% INSPECTION	The CONTRACTOR shall submit all inspection documentation, stamped by the quality inspector responsible, showing 100% inspection for all attributes noted on the drawings, for all parts submitted. Inspection documentation shall include serial and/or lot numbers if applicable.

Quality Clause Code	Clause Name	Clause Text
QC016	100% INSPECTION - CRITICAL CHARACTERISTICS	The CONTRACTOR shall perform 100% inspection of critical characteristics identified in the drawing or specification. The CONTRACTOR shall submit a Certificate of Conformance (CoC) confirming all critical characteristics have been verified to meet the requirements of the engineering document(s). The certification shall contain at a minimum: 1) Name and address of CONTRACTOR 2) Contract number 3) Part number with revision 4) Serial number(s) (as applicable) 5) Quantity 6) Listing of critical characteristics verified The CoC shall be signed with title and dated by an authorized CONTRACTOR representative.
QC021	CAGE CODE	Unless otherwise specified in this Contract, CONTRACTOR shall include their Commercial and Government Entity (CAGE) code number as part of assigned serial number(s) described by Cage Code-Serial Number or serial number-cage code, separated by dash with no spaces (e.g., 12345-001 or 001-12345). The total serial number length shall not exceed sixteen characters. Registration instructions to obtain a CAGE code are available here
QC022	TEST AND CALIBRATION SYSTEM APPROVAL	For testing and calibration services the CONTRACTOR must hold a current ISO 17025 certification or be the Original Equipment Manufacturer (OEM) with AS9100 certification. Third party accreditation will be accepted. CONTRACTOR declaring system compliance with no formal accreditation shall be subject to review and approval by ULA. If ULA has accepted the CONTRACTOR's third-party quality registration and there are subsequent changes to the registration status, the CONTRACTOR must notify the ULA Procurement Representative within three (3) days of receiving such notice from their registrar. CONTRACTOR must notify ULA if unable to perform Work and shall only send Work to a ULA approved Subcontractor.

Quality Clause Code	Clause Name	Clause Text
QC027	MODEL BASED DEFINITION (MBD)	This Contract requires Special Capabilities. The CONTRACTOR and/or CONTRACTOR's subcontract source **must** be MODEL BASED DEFINITION (MBD) approved by ULA at the time of process performance. To become MBD approved the Contractor must complete a QS-702.3 questionnaire. The completed questionnaire along with the supplier's supporting procedures shall be submitted to ULA via email. Upon ULA review and approval, it shall be determined if an onsite ULA verification audit will be required prior to MBD special capability approval. The CONTRACTOR shall include this clause, including this paragraph, in all Subcontracts. CONTRACTOR shall conform to ULA's document QS-702.03 "Quality Assurance Standard for Model Based Definition at ULA Suppliers" and obtain ULA approval as MBD Capable if Contractor receives, downloads, and/or uses CONTRACTOR's MBD geometry in any format. • If CONTRACTOR receives ULA's MBD geometry, CONTRACTOR is required to obtain ULA's approval as MBD-capable. • If CONTRACTOR provides ULA's MBD geometry to CONTRACTOR's subcontractors in any format, CONTRACTOR shall impose ULA's document QS-702.03 as a requirement and is responsible for its subcontractor's conformance. - Subcontractors shall provide Certificate of Conformance of completed work and shall be part of the CONTRACTORS data package. A copy of ULA's document QS-702.03 and a list of ULA approved suppliers/processors and their associated processes can be obtained here or are available through a ULA Procurement Representative.
QC028	DROP SHIPMENT DOCUMENTATION ACCEPTANCE	Work under this Contract shall be drop shipped to a destination other than a ULA facility. Final acceptance is contingent upon submittal and approval of data to ULA.
QC029	ELECTROSTATIC DISCHARGE PROTECTION (ESD)	Work under this Contract requires Electrostatic Discharge (ESD) protection, proper packaging and identification. The CONTRACTOR shall ensure their ESD protection program complies with ULA standards and specifications. All Work must be shipped with leads electrically shorted together in noncorrosive, conductive foam or other suitable packaging. Hardware shall be placed in conductive or static dissipative packages (e.g., tubes, carriers, bags, etc.) for shipment and labeled electrostatic-sensitive items. NOTE: Lead shorting is not required for items such as Dual Inline Packages (DIPs) shipped in conductive rails or tubes.
QC030	ELECTROSTATIC DISCHARGE PROTECTION (ESD) PROGRAM REQUIREMENT	Work under this Contract requires the CONTRACTOR to maintain a documented Electrostatic Discharge (ESD) protection program. The CONTRACTOR shall ensure their ESD protection program complies with ULA standards and specifications. If ULA's specification referenced in the Contract does not specify ESD program requirements, the CONTRACTOR shall maintain a documented ESD protection program which meets the elements 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, and 5.9 requirements of MIL-STD-1686C, and includes documented employee training.

Quality Clause Code	Clause Name	Clause Text
QC031	ELECTROSTATIC DISCHARGE PROTECTION (NON-ESD)	Work under this Contract is not considered Electrostatic Discharge (ESD) sensitive. However, Work shall be associated with ESD sensitive hardware in the stocking and manufacturing processes where static generating packaging materials are forbidden. CONTRACTOR shall make every effort to package and ship Work in noncorrosive, conductive foam or other suitable packaging (e.g., static-dissipative packages, tubes, carriers, bags, etc.)
QC033	FOREIGN OBJECT DAMAGE (FOD) AWARENESS	CONTRACTOR shall maintain a Foreign Object Elimination (FOE) Program to ensure work is performed in a manner to prevent foreign objects from entering into deliverable items. CONTRACTOR shall provide FOE Program training to employees performing operations on Foreign Object Damage (FOD) Sensitive products. Work areas and control of tools, parts, and materials shall be maintained to mitigate FOD risks, and all tooling, jigs, fixtures, and test equipment shall be kept clean and in good repair. CONTRACTOR shall provide certification confirming deliverable products are free of any foreign materials entering the installed product or companion components/systems.
QC034	FOREIGN OBJECT DAMAGE (FOD) CONTROL	CONTRACTOR shall maintain a Foreign Object Elimination (FOE) Program with a documented and current plan to ensure work is performed in a manner to prevent foreign objects from entering deliverable items. The CONTRACTOR shall identify a FOE person responsible for implementing the FOE Program. CONTRACTOR shall provide FOE Program training to employees performing operations on Foreign Object Damage (FOD) Sensitive products. Work areas and control of tools, parts, and materials shall be maintained to mitigate FOD risks, and all tooling, jigs, fixtures, and test equipment shall be kept clean and in good repair. Prior to closing inaccessible or obscured areas and compartments during assembly, the CONTRACTOR shall perform an inspection for foreign objects/materials. The CONTRACTOR shall document and investigate all FOD incidents to ensure elimination of the root cause. ULA shall have the right to perform inspections, and FOE Program audits at CONTRACTOR’s facility to ensure program documentation and effectiveness. CONTRACTOR shall flow down requirements as required to their Subcontractors to ensure compliance with this requirement. CONTRACTOR shall provide certification confirming deliverable products are free of any foreign materials entering the installed product or companion components/systems.

Quality Clause Code	Clause Name	Clause Text
QC035	FOREIGN OBJECT DAMAGE (FOD) CRITICAL REQUIREMENTS	CONTRACTOR shall maintain a Foreign Object Elimination (FOE) Program with a documented and current plan to ensure work is performed to prevent foreign objects from entering deliverable items. The CONTRACTOR's FOE Program processes shall be provided to ULA for review and approval. The CONTRACTOR shall identify a FOE focal responsible for implementing the FOE Program. CONTRACTOR shall provide FOE Program training to employees performing operations on Foreign Object Damage (FOD) Sensitive products. Maintenance of the work area and control of tools, parts and materials shall preclude the risk of FOD incidents. Prior to closing inaccessible or obscured areas and compartments during assembly, the CONTRACTOR shall perform an inspection for foreign objects/materials. Tooling, jigs, fixtures, and test or handling equipment shall be maintained in a state of cleanliness and repair to prevent FOD. The CONTRACTOR shall document and investigate all FOD incidents to ensure elimination of the root cause. ULA shall have the right to perform inspections, verification and FOE Program audits at CONTRACTOR's facility to assure program documentation and effectiveness. CONTRACTOR shall flow down requirements as required to Subcontractors to ensure requirement compliance. The CONTRACTOR shall report, in writing, to the Contract designated technical interface, any FOD Sensitive products within three days of discovery and provide written cause and corrective action to the problem within 15 days of discovery. CONTRACTOR shall provide certification confirming deliverable products are free of any foreign materials that could result in foreign object damage to the installed product or companion components/systems.
QC038	IDENTIFICATION – TIME AND TEMPERATURE SENSITIVE	Time and temperature storage conditions must be attached to the packing sheet and accompany each shipment. The outermost shipping box must be marked to indicate "Time and Temperature Sensitive Material", including the temperature storage range in degrees.

Quality Clause Code	Clause Name	Clause Text
QC041	LIMITED LIFE AND AGE CONTROL ITEMS	Work on this Contract requires submittal of a Certificate of Conformance (CoC) which includes the following information, at a minimum: 1) Name and address of CONTRACTOR 2) Contract Number 3) Part Number with revision 4) Manufacturer's Name (if not CONTRACTOR) 5) Lot, Heat, Batch, Date Code, and/or Serial Number (as applicable) 6) Date of Manufacture 7) Date of Shipment from Manufacturer 8) Remaining minimum shelf life at time of certification The CoC shall be signed with title and dated by an authorized CONTRACTOR representative. Upon shipment, remaining shelf life of the Work shall meet the minimum shelf life specified on the Contract. If no minimum shelf life is specified, 75 percent of the shelf life shall remain on the Work unless approved by PMP. Work shall be individually packaged (e.g., bagged). When the size of the item or the applicable specification does not permit marking of individual items, CONTRACTOR shall label each package or box furnished. All elastomeric parts shall be identified on the part itself or on interior and exterior packaging in compliance with the specification.
QC042	LIMITED OPERATING LIFE ITEMS	CONTRACTOR shall collect and maintain records of operating time or cycles for all items designated as Limited Operating Life Items (LOLI) by ULA's drawings or specifications. The following records shall be submitted to ULA for each contracted item: 1) Total elapsed time or cycles for each operation 2) Cumulative time or cycles starting with the first functional test 3) Remaining time or cycles The records shall be signed and/or stamped and dated by an authorized CONTRACTOR representative.
QC043	MATERIAL REVIEW AUTHORITY (MRA)	Nonconformances to CONTRACTOR controlled features, characteristics, and parameters that do not result in failures to completely meet ULA specification requirements may be dispositioned in accordance with CONTRACTOR's system for the control of non-conforming goods. ULA does not delegate Material Review Board (MRB) authority to CONTRACTOR or its suppliers relative to permanent nonconformances of features, characteristics, or parameters controlled by ULA's specifications. This delegation is subject to review at any time by ULA. Material Review records, reports, documentation and qualifications of personnel shall be made available to ULA upon request, or as required by the terms of the contract. In addition, copies of all applicable supplier "Use As Is" and "Repair" nonconformance documentation (including supporting technical rationale to support disposition), which were made solely by the CONTRACTOR, per the terms and conditions of this QC Clause, shall be included within the applicable Acceptance Data Package. MRA delegation can be rescinded at any time by written notification from ULA. If CONTRACTOR requests ULA to provide an MRB disposition outside of MRA authority, CONTRACTOR must then communicate in writing any internal disposition actions to ULA that negates the need for ULA MRB (e.g., scrap or remove & replace).

Quality Clause Code	Clause Name	Clause Text
QC045	NONDELIVERABLE SOFTWARE REQUIREMENTS	The CONTRACTOR shall plan, develop, and implement those practices and procedures necessary to ensure requirement compliance for hardware designed, tested, supported, or operated by software. CONTRACTOR shall provide controls to ensure different software versions are accurately identified and documented, no unauthorized modifications are made, all approved modifications are properly incorporated, and software used for testing is the proper version. CONTRACTOR shall ensure support software and computer hardware to be used to develop and test software or hardware under the Contract is acceptable to ULA. CONTRACTOR shall establish a baseline of procured or developed software by performing validation tests including demonstration of pass/fail criteria. ULA reserves the right to observe all validation tests and shall be notified at least three(3) days in advance of the start of testing.
QC046	NOTIFICATION OF CHANGES (NON-ENGINEERING)	The CONTRACTOR shall provide advanced notification of any change(s) to tooling, facilities, materials or processes at the CONTRACTOR or the CONTRACTOR's sub-tier that will likely affect the form, fit, or function of ULA's contracted product to the ULA Procurement Representative. This includes but is not limited to changes in fabrication, assembly, handling, testing, facility location, or introduction of a new Subcontractor.

Quality Clause Code	Clause Name	Clause Text
QC047	CHANGE DEVIATION REQUEST	The Change Deviation Request (CDR) shall be submitted for a supplier change request to the ULA Purchase Order baselines. The CDR shall be prepared and submitted for each applicable part number and effectivity specified in the Purchase Order. If the change or deviation affects the total Items ordered by ULA's Purchase Agreement, it shall be indicated. Utilize ULA form Z-EN-010, or supplier equivalent, in the supplier portal on iDM, to document and submit CDR. Refer to the AS9100 Configuration Management section for guidance in consideration of proposed changes to ULA-controlled configuration baselines. The following information below is a summary of the minimum requirements: 1) ULA part number (or ULA specification number and description of item being procured). 2) CONTRACTOR part number specified for delivery in ULA's purchase order, if applicable. 3) Classify the change or deviation as Class I or Class II using the definitions in the ULA form. 4) Effectivity of the requested change or deviation and, if the item is traceable, include the serial number(s) affected by the requested change. 5) Impact or savings on cost or delivery to implement the change or deviation and any impacts if not approved, if applicable. Describe the reason and clearly detail the proposed changes or deviations with supporting rationale sufficient for identification and evaluation. Wording shall be definitive so it can be directly used in ULA contractual documents. Changes to models, specifications, documents, drawings, and parts lists shall be shown in From/To or Was/Is format to clearly define the proposed change. Utilize the C/DR Form, CONTRACTOR's format is acceptable, provided the content meets the requirements of the ULA Form. **The C/DR Form can be provided at the request of the supplier.**

Quality Clause Code	Clause Name	Clause Text
QC048	ORDNANCE REQUIREMENTS	The following requirements apply to each item/lot shipped under this Contract and shall take precedence over data-submittal requirements of any other quality clauses incorporated in this Contract. A Statement of Work may include additional mandatory requirements. 1) Requirements for Lot Acceptance Test (LAT) Firing: a) CONTRACTOR shall prepare in advance a data package consisting of production acceptance test report (PATR) (e.g., non-destructive test reports, applicable X-ray/N-ray C of C or films, and environmental test reports), build paper, rejection reports, certifications, and any additional pertinent data relative to the lot to be tested. The data package shall be made available to ULA's Ordnance Engineer at the test site or electronically no later than one day prior to the scheduled test firing. Functional testing shall not proceed until supplier receives approval from ULA Engineering. b) ULA's Engineering and Quality Assurance Representatives (Quality Engineer or Procurement Quality Assurance Representative) shall conduct a review of the data package. When the data package is acceptable, and after completion of successful LAT firing, ULA's Engineering and Quality Assurance Representatives shall sign the Ordnance Device Certification, which CONTRACTOR shall include with each shipment. c) If ULA review of the data is not complete prior to item shipment, ULA shall generate an Open Lien Quality Notification and send it to CONTRACTOR to be shipped with hardware. 2) Documentation to be shipped with Ordnance. CONTRACTOR shall include the following documentation with each ordnance shipment: a) CONTRACTOR's shipping report stamped by ULA's Quality Assurance and Government Source Inspection (if required). b) ULA's Ordnance Device Certification or Open Lien Quality Notification c) Material Safety Data Sheet (MSDS). d) Bureau of Explosive documentation and Competent Authority Letter with material classification, material description, and explosive classification e) Shipping information necessary to properly package, mark, and label, in accordance with Department of Transportation Hazardous Materials Regulations, shall be included. 3) Ordnance Data Review Requirements after Shipment of Hardware: a) The ULA Procurement Representative shall notify CONTRACTOR the data package is acceptable or additional data is needed.
QC050	PRELIMINARY MATERIAL REVIEW (PMR) AUTHORITY	The CONTRACTOR is delegated Preliminary Material Review authority (PMR) for hardware nonconformances. This authority is limited to dispositions of Rework to engineering requirements, return to previous operation for reprocessing, Scrap (unless material was supplied by ULA), Repair to a ULA approved Standard Repair Instruction , and Return to Subcontractor. PMR does not extend to the use of Material Review Board authority. If CONTRACTOR requests ULA to provide an MRB disposition outside of MRA authority, CONTRACTOR must then communicate in writing any internal disposition actions to ULA that negates the need for ULA MRB (e.g., scrap or remove & replace).

Quality Clause Code	Clause Name	Clause Text
QC051	PREPRODUCTION AND FIRST ARTICLE APPROVAL FOR CASTINGS, FORGINGS, & FORMED PRODUCTS	Prior to production, the CONTRACTOR shall submit the pre-production manufacturing, inspection, and test plans for approval in accordance with applicable casting, forging, or formed product requirements. After manufacturing the first article, and prior to shipping, the CONTRACTOR shall submit a First Article / Qualification Test Report for approval. The report shall include applicable qualification test data and finalized manufacturing inspection and test plans. These plans shall then be fixed processes for subsequent production lots. Refer to the engineering drawing or specification for the applicable Pre-Production /First Article specification for specific requirements (e.g., ULA 1P00086, STP0578, 1P00011 Class A, AMS 4241, AMS 2375 etc.). ULA approval is required, but not limited to the following: 1) This is the first time the part number has been produced by the Contractor. 2) A significant change was made to the design drawing, in-process control factors, controlled operations, or fixed process plans which could affect the performance of the part. 3) A change is made in casting/forging/formed product Subcontractor, or Subcontractor has changed location. 4) Seven years has elapsed since last production lot. 5) Requested by ULA. Laboratories selected for testing must be a ULA approved process source. If, under a previous Contract, ULA provided qualification approval for the casting/forging/formed product ordered as part of this Contract, then submittal and re-approval of fixed process plans is not required under this Contract unless, after the previous approval, changes as defined in the applicable preproduction specification have been made.
QC059	MATERIALS AND PROCESSES ENGINEERING APPROVAL	This Contract contains requirements for parts or materials controlled by ULA Parts, Materials, and Processes (PMP) Engineering. The source(s) of these parts and materials must be approved by ULA PMP. If you are unsure about who is approved by ULA PMP, contact the ULA Procurement Representative.

Quality Clause Code	Clause Name	Clause Text
QC064	QUALITY SYSTEM REQUIREMENTS (SAE AS9100)	Quality System Standard: CONTRACTOR must have a Quality Management System conforming to the requirements of the elements described in SAE AS9100. Third-party registration by an accredited registrar is required. CONTRACTOR declaring system compliance to AS9100 without a formal accredited registrar shall be subject to review and approval by ULA. The CONTRACTOR must ensure any exclusions documented on their certificate do not invalidate products or processes in this Purchase Order. Notification of Changes in Registration Status: If ULA has accepted the CONTRACTOR's third-party quality registration and there are subsequent changes to the registration status, the CONTRACTOR must notify the ULA Procurement Representative within three (3) days of receiving such notice from their registrar. Subordinate Location Requirements: When the contractor holds a third-party certification and utilizes a subordinate manufacturing or distribution location(s) for shipment of product on this purchase order, the subordinate location must be within the CONTRACTOR 's organizational control and must be listed on the CONTRACTOR's certificate. Review and Approval: Throughout the performance of a Purchase Order, the CONTRACTOR's Quality Management System is subject to review and approval by ULA's Quality organization. Corrective Actions and Quality Performance: ULA reserves the right to suspend or disapprove a CONTRACTOR's status if corrective action requests are not responded to in a timely manner or deemed to be ineffective allowing repetitive noncompliance. Quality Management System Exception Process CONTRACTOR's declaring system compliance to a standard other than AS9100 (e.g. ISO 9001, AS9120, AS9003) must provide any required facility access and documentation for review and approval by ULA's Quality Department. ULA shall document a restricted approval, if deemed suitable. The CONTRACTOR and any subordinate location must be within the CONTRACTOR 's organizational control and must be listed on any applicable certificate.
QC066	RIGHT OF ACCESS	Work under this Contract is subject to ULA surveillance/inspection at CONTRACTOR's plant or Subcontractor's facility. The CONTRACTOR shall be notified by the ULA Procurement Representative if surveillance/inspection is to be conducted.

Quality Clause Code	Clause Name	Clause Text
QC068	SERIALIZATION	Serialization requirements are imposed on this Contract. All work, including spares, test units, etc. shall be assigned a serial number in accordance with requirements within this clause unless otherwise specified on this Contract (e.g. Statements of Work, Engineering Documentation, etc.). Serial number(s) shall be assigned sequentially and: 1) Shall not exceed sixteen characters 2) Shall not be duplicated in a part family when items are derivatives of one another, and can be reworked to comply with a different dash number (e.g., 1G12345-1 & 1G12345-501 parts may only have the same serial number if the -1 cannot be reworked into a -501 and/or vice versa) 3) Shall not be changed once assigned 4) Be retained on work for repair, rework, or rework to a new configuration with the same base drawing number 5) Include the CONTRACTOR's Cage Code when clause QC021 is invoked on the contract CONTRACTOR shall maintain a record of serial numbers and list them in all shipping reports. Serial number ranges may be used if any breaks are noted (e.g., S/N 1–10, 12–20, 25–30 for 25 parts). For multiple shipments, only the serial numbers included in the shipment shall appear in its shipping report. Leading zeros are not permitted. CONTRACTOR shall maintain traceability for all Contract items by documenting materials, parts, and assemblies from acquisition through fabrication, assembly, test, and delivery. Documentation shall include traceability to part serial numbers, lot or batch numbers, raw materials, subassemblies, and applicable test reports, shipping reports, or certifications. For clarification, refer to ISO 9001 or SAE AS9100 section 7.
QC070	SINGLE LOT OR DATE CODE	All parts provided under this Contract shall come from the same single lot or date code. CONTRACTOR shall obtain written ULA approval before using multiple codes within the order and include this approval with the shipping documentation. When mixed lot or date codes are authorized, the shipper shall list each code and its quantity. Multiple lot or date codes shall not be comingled, and each part container shall be marked with its quantity and lot or date code.

Quality Clause Code	Clause Name	Clause Text
QC074	STATEMENT OF WORK	Work defined in this Contract is subject to additional requirements per a Statement of Work (SOW), which must be met to achieve compliance to contract requirements. Work shall not be accepted by ULA if CONTRACTOR fails to comply with all requirements of the SOW. (Reference Contract Purchase Order for applicable SOW) Unless otherwise allotted/directed by ULA, CONTRACTOR shall submit Quality Clause Data Item(s) to ULA electronically via SDT. For contracts subject to QC002 or QC097, this submission shall be completed prior to logging of ASAP Call; for all other contracts, submission shall be completed prior to shipment of Work. Each document submitted shall be entered into SDT as a separate line with a separate file identified with the following information: 1) Procured Part Number (ULA part number or supplier part number from PO), including applicable Serial Number and Lot Number (Serial numbers must be coordinated with ULA Procurement Representative for submission into SDT) 2) Purchase order number 3) Document number with revision 4) Title of document with reference to applicable ULA quality clause ULA's system shall issue an SDT number; CONTRACTOR shall record this number within the body of the shipping document. If CONTRACTOR does not have access to ULA's internal network and/or SDT, they shall contact their ULA Procurement Representative for the completion/submission of an IT Access Request Form.
QC076	TRACEABILITY	The CONTRACTOR shall maintain full traceability for all Contract items, documented from acquisition through fabrication. Documentation shall include traceability to part serial numbers; lot or batch numbers; raw materials; subassemblies; and, as applicable, test reports, shipping records, and certifications.
QC077	SUBMITTAL – ACCEPTANCE TEST PROCEDURE	The CONTRACTOR shall develop Acceptance Test Procedures (ATPs) for all hardware requiring acceptance testing. ATPs, including all associated software or firmware used in testing, require ULA approval via SDT prior to first unit testing. Any subsequent changes also require ULA approval before implementation.

Quality Clause Code	Clause Name	Clause Text
QC079	SUBMITTAL – FAILURE ANALYSIS REPORT	The CONTRACTOR shall perform a failure analysis on any item returned under this Contract and shall provide the report to ULA. If not otherwise defined in the SOW, the report shall include the following information at a minimum: 1) Date of report 2) Contract number 3) CONTRACTOR's Name and Address 4) Part Name, Number, Revision , and Serial Number 5) Nonconformance Document number (if specified by Contract) 6) Specific and contributory causes of failure 7) List of parts required to rework/repair item(s) 8) Corrective action taken to preclude recurrence and effectivity by date or serial number Signature with title of CONTRACTOR's Quality Representative approving the failure analysis report
QC081	SUBMITTAL – ACCEPTANCE TEST REPORT	CONTRACTOR shall submit the results of the lot or individual acceptance tests required by the Contract. The report shall include the specification with revision which governs the production of the item. Where quantitative limits are established by the specification, the report shall indicate the actual values obtained during testing. Test reports shall include the control identity (e.g., lot, heat lot, batch, serial number) of the Work tested. If CONTRACTOR is not the manufacturer, CONTRACTOR shall furnish the manufacturer's test report as described above.
QC083	SUBMITTAL – FIRST ARTICLE INSPECTION (FAI)	CONTRACTOR is required to perform a First Article Inspection (FAI). The inspection records and data shall be per AS9102 or equivalent reproduction. If the deliverable is an assembly, this inspection shall also include all the piece parts making up the assembly. When testing is required, the parameters and results of the test shall be recorded in the same manner. CONTRACTOR shall submit a copy of the initial FAI report through SDT. Additionally, when a partial or re-accomplished FAI is performed, as required by AS9102, CONTRACTOR shall submit said report to ULA through SDT. These reports must show evidence of acceptance by the Procurement Quality Assurance Representative when quality clause QC002 ULA's Source Acceptance is applied to the Contract, either by application of Source Stamp and/or Approval in SDT system. Note: "Acknowledgement" in SDT is not considered acceptance. If an FAI has already been performed for this part number, subsequent shipments of item shall not require a new full or partial FAI to be performed if all the following are true: 1) No change in Subcontractor(s), or CONTRACTOR location 2) No change in processes, tooling, or materials can affect fit, form or function 3) No natural or man-made occurrence which has affected manufacturing 4) No lapse in production for two years, or as otherwise specified by ULA.

Quality Clause Code	Clause Name	Clause Text
QC084	SUBMITTAL – RESISTIVITY AND/OR CONDUCTIVITY TEST	The Work covered by this Contract requires an electrical resistivity and/or conductivity test. CONTRACTOR shall perform and certify to the completion of the tests per the Contract. Results shall include, at a minimum: 1) Part number with revision 2) Serial number(s) or lot code(s), as applicable 3) Acceptance criteria 4) Actual minimum and maximum values obtained CONTRACTOR shall submit test results to ULA via SDT and be signed and/or stamped with title and dated by an authorized CONTRACTOR representative.
QC085	SUBMITTAL – HARDNESS TEST	The Work covered by this contract requires a hardness test. CONTRACTOR shall perform and certify to the completion of the tests per the Contract. At a minimum, the test report shall include: 1) Part number with revision 2) Serial number(s) or lot code(s), as applicable 3) Acceptance criteria 4) Actual minimum and maximum values obtained CONTRACTOR shall submit test results to ULA via SDT and be signed and/or stamped with title and dated by an authorized CONTRACTOR representative.
QC087	SUBMITTAL – MANUFACTURING AND INSPECTION CONTROL PLAN	CONTRACTOR shall submit a manufacturing and inspection control plan for ULA approval. At a minimum, the plan shall delineate the sequence of manufacturing operations to be performed, the points within the manufacturing sequence where inspection is to be performed, the type of each inspection specified, and, if applicable, the specifications defining each inspection requirement. This plan shall be submitted through SDT. Approval by ULA engineering is required prior to production of the Work. Approval of this plan does not relieve CONTRACTOR of the responsibility to perform all inspections required by the applicable specifications. Any changes to the approved plan shall be submitted to ULA for approval.

Quality Clause Code	Clause Name	Clause Text
QC092	SUBMITTAL – FUNCTIONAL/PROOF TEST REPORT	This Contract requires functional and/or proof testing. Actual test report(s) shall be submitted to ULA via SDT and include the following at a minimum: 1) CONTRACTOR name and address and/or Independent Laboratory name and address 2) Contract number 3) Part number with revision 4) Serial number (if applicable) 5) Testing date 6) Test parameters and results The report(s) shall be signed and/or stamped with title and dated by an authorized CONTRACTOR representative.
QC093	SUBMITTAL – CALIBRATION	The CONTRACTOR shall submit to ULA via SDT a Certificate of Calibration for each item calibrated and include the following at a minimum: 1) Name and address of the calibration lab performing the calibration. 2) Model Number or Part number with revision of the Item being calibrated, if applicable. 3) Unique calibration control number and/or Item Serial number if applicable 4) Identification of Calibration procedure used, including sampling procedure and any deviations to the procedure, if applicable. 5) Calibration tolerance range 6) Identification of all measurements taken, including standard values applied, resulting values obtained and degree of deviation or error. 7) Environmental Conditions for each parameter calibrated, if applicable 8) Operating error per specification (measurement uncertainty) 9) Degree of correction of out of tolerance conditions and remaining uncorrected out of tolerance conditions if applicable. (As-Found and As-Left condition) 10) Identification of standards used with traceability to National Institute of Standards and Technology (NIST). 11) Statement of calibration compliance to ISO/IEC 17025 and ANSI/NCS Z540.1. 12) Signature and/or stamp with title and date of the person responsible for the content of the report or certificate.
QC096	SUBMITTAL – MATERIAL SAFETY DATA SHEET	CONTRACTOR shall submit a Material Safety Data Sheet with the shipment. CONTRACTOR shall submit the proper shipping classification, flash point, and information necessary to properly ship the Work in compliance to CFR Title 49.

Quality Clause Code	Clause Name	Clause Text
QC097	DELEGATED SUPPLIER PARTNER (DSP) PROGRAM	If CONTRACTOR does not have approval in ULA's DSP program, CONTRACTOR shall adhere to the requirements of clause QC002, ULA's Source Acceptance. Work on Contract is approved for delegated acceptance in ULA's Delegated Supplier Partner (DSP) program. CONTRACTOR shall follow the DSP program rules and shall adhere to the Program Requirements listed below. Approval in ULA's DSP program delegates authority to CONTRACTOR to accept Work on behalf of ULA. Work thus accepted by CONTRACTOR shall not require ULA source inspection per clause QC002, except for periodic surveillance. Program Requirements: 1) CONTRACTOR must be listed as DSP approved within ULA Approved Supplier Database CONTRACTOR shall maintain access to, and log all inspections in, the ULA Automated Source Activity Planning (ASAP) tool 72 hours prior to scheduled performance of inspection. 2) CONTRACTOR is required to maintain Quality Management System approval by an accredited Certification Body, or through a ULA 2nd party audit. 3) FAI verification shall be requested through the ASAP tool and performed by a ULA Procurement Quality Assurance Representative (PQAR) at the CONTRACTOR's facility prior to shipment of Work if BOTH: a) QC083, First Article Inspection (FAI), has been applied to this contracted item, AND b) No valid FAI report is on file within the ULA database (ref QC083 for validity criteria) 4) Work accepted by CONTRACTOR shall be verified only by a Delegated Supplier Representative (DSR) in accordance with contractual (drawing, specification, etc.) requirements. DSR shall show evidence of compliance and certify acceptance of all product tests/inspections by a ULA provided stamp imprint and date on the shipping document. Stamp impressions shall be legible and shall not obscure pertinent information on the shipping document. 5) Notwithstanding a supplier's status as an approved DSP, delegation does not apply to the following circumstances: a) For hardware returned to supplier for rework and the ULA nonconformance document disposition action remains open, the hardware must be accepted by the ULA PQAR prior to shipment back to ULA. b) For hardware returned to the supplier for repair, the hardware must be accepted by ULA PQAR prior to shipment back to ULA. 6) CONTRACTOR shall notify ULA of any changes to list of DSRs by use of Form QS-808.01.A, Designated Supplier Representative List, which can be obtained through the ULA Procurement Representative. CONTRACTOR's failure to comply with any of the above-stated requirements at any time may result in the probation or revocation of DSP authority. Probation or Revocation requires CONTRACTOR to immediately comply at no cost increase to ULA with the requirements of clause QC002, ULA's Source Acceptance, in lieu of the obligations listed in this clause. ULA shall notify CONTRACTOR of any changes to approval status.

Quality Clause Code	Clause Name	Clause Text
QC098	AIRBORNE TUBING FABRICATION VERIFICATION	The following requirements apply to each contracted item and to every item included in a contracted kit. This entire clause shall be flowed down to the CONTRACTOR's subcontracts for Work performed under this Contract. 1) The CONTRACTOR shall prepare a document and include it with the shipment containing the following information at a minimum: ULA's PO number, drawing number with revision, test date(s), CONTRACTOR's name, address, and cage code identification number. Name, address, and cage code of subcontracted test and clean facilities shall also be included if applicable. 2) Certificate of conformance to verify the following requirements: a) Condition of test fixture and fittings (flare savers or ring seal fittings are not permitted) b) Lubrication per ULA document 69-85049 paragraph 3.2.1.4, table 17, and figure 30 c) Tube flare conformance (reference 69-85049 table 1) d) No damage to the tubing, sleeves, B-nuts, and sealing surfaces e) B-Nuts and sleeves are free to rotate (reference 69-85049 paragraph 3.2.1.7.3) f) No leakage or permanent deformation g) Cleanliness levels required by engineering drawing have been met 3) Actual and required values shall be recorded and documented for: a) Pressure test values (reference 69-85049 table 27) b) Torque values applied during proof testing (reference 69-85049 table 16)
QC099	SUPPLIER DATA TRANSMITTAL (SDT)	Unless otherwise allotted/directed by ULA, CONTRACTOR shall submit Quality Clause Data Item(s) to ULA electronically via SDT. For contracts subject to QC002 or QC097, this submission shall be completed prior to logging of an ASAP Call; for all other contracts, submission shall be completed prior to shipment of Work. Each document submitted shall be entered into SDT as a separate line with a separate file identified with the following information: 1) Procured Part Number (ULA part number or supplier part number from PO), including applicable Serial Number and Lot Number (Serial numbers must be coordinated with ULA Procurement Representative for submission into SDT) 2) Purchase order number 3) Document number with revision 4) Title of document with reference to applicable ULA quality clause ULA's system shall issue an SDT number; CONTRACTOR shall record this number within the body of the shipping document. If CONTRACTOR does not have access to ULA's internal network and/or SDT, they shall contact their ULA Procurement Representative for the completion/submission of an IT Access Request Form.

Quality Clause Code	Clause Name	Clause Text
QC100	SUBMITTAL – PRECISION CLEAN PROCEDURE	Precision cleaning procedure submittal(s) shall be completed within ULA's SDT system. The file name shall reference the ULA cleanliness specification number and the CONTRACTOR's procedure with revision (if applicable). A precision cleaning procedure submittal to QC100 shall be submitted on a standalone SDT (e.g., the SDT shall not have any quality clauses other than QC100). If the CONTRACTOR's precision cleaning procedure has already been approved by ULA PMP Engineering, resubmissions of the procedure are only required if the procedure has undergone a technical change. Work under this contract shall be precision cleaned by the CONTRACTOR as required by ULA's engineering drawings and applicable specifications. Prior to performing precision cleaning defined within Work, CONTRACTOR shall submit a new or revised detailed Precision Cleaning Procedure to ULA PMP Engineering for approval. At a minimum, the procedure shall include: 1) *Scope* – Define as a generic precision cleaning procedure or list specific part numbers, drawing numbers, and any other unique hardware identification/configuration 2) *Applicable Documents* – List any relevant standards or specifications (ULA's, common industry, and/or CONTRACTOR's) 3) *Materials, Equipment, Chemicals* –List materials used (liquids, gases, tapes, films/bags, etc.) and any special equipment or tooling not normally referenced in common industry standards 4) *Pre-Cleaning Steps* – Detailed description including: a) Materials/fluids used and their quantities b) Times and temperatures when cleaning in any liquid/ultrasonic bath or purge gases c) Filter type(s) d) Any in-process drying and/or inspection 5) *Precision Cleaning, Cleanliness Verification & Drying* – Detailed description including: a) Verification requirements, clearly referenced or listed in a table b) All inspection methods used (e.g., UV inspection, etc.) c) Steps for obtaining verification sample d) Method for performing particle counting and/or residue analysis 6) *Final Inspection & Packaging* – Details on bagging, sealing openings, and decal usage Precision Cleaning and/or testing of the articles shall be performed in controlled environments meeting Class 7 (or cleaner) requirements per ISO 14644-1 and 14644-2 unless otherwise approved by ULA PMP Engineering. CONTRACTOR shall submit a contamination control plan meeting the requirements of ASTM E 1548 to ULA PMP Engineering for approval before precision cleaning.

Quality Clause Code	Clause Name	Clause Text
QC102	SUPPLIER NON-CONFORMANCE REPORTING PROCESS	This Quality Clause shall govern the reporting process of supplier identified non-conformances against requirements flowed down in the ULA purchase order, including ULA furnished material. Suppliers shall submit non-conformance reports to ULA procurement and quality engineering for review via e-mail. Request shall be prepared and submitted to ULA as soon as the defect is identified. Submissions received within 14 days of supplier planned delivery date are likely to cause delays. Suppliers can either utilize ULA's Supplier NCR Form (Form QS-600) or provide a supplier prepared report including all required fields designated on the ULA form. **Form QS-600 can be provided at the request of the supplier**. This clause does not supersede Material Review Authority or Preliminary Material Review Authority, if applicable.
QC103	SUBMITTAL – WELD SUPPLEMENTS	Work ordered under this contract shall be welded by the CONTRACTOR as required by ULA's engineering drawings and applicable specifications. Prior to performing production welding defined within work, CONTRACTOR shall submit all applicable weld qualification documentation as described in the ULA specification to ULA Engineering / Weld Engineering for approval. Items under this clause are subject to, but not limited to the following as guided by the applicable weld specification: • ULA Weld Engineering Review and Approval of Weld Procedure Qualification report (WPQR) and Weld Procedure Specification (WPS). Prior to Production Start. • ULA Weld Engineering Review and Approval of weld inspection plan. If the inspection of welds is being outsourced, ULA review of PO instructions and workflow given to sub tiers is required. • ULA Engineering Review of Subcontractor Process Control as defined or required by the applicable weld specification. Items under this contract may have nonconformance requirements superseding PMR authority granted under ULA quality clause QC050 depending on the weld specification defined under contract. Reference the applicable weld specification guided by the hardware for nonconforming hardware requirements. Weld submittals must be completed within ULA's SDT system The file name shall reference the ULA part number and weld specification. If CONTRACTOR's weld documentation has already been approved by ULA, resubmissions are required only if procedure has undergone a technical change.
QC104	MATERIAL TESTING – MATERIAL CODE REPORT	This contract has material on the Engineering Bill of Materials (EBOM) requiring independent receiving testing per the respective Material Code Report (MCR). Upon Contractor receipt of material, perform all receiving tests on each lot of material as required per the applicable MCR. All multi-component materials received together as matched kits and components shall be tested together for receiving testing as required by the MCR. CONTRACTOR shall provide applicable material test results, process certifications, and inspection records pertaining to Work submitted upon ULA's request. Receiving testing may be performed by the CONTRACTOR, subcontractor, or an external test house. The material manufacturer's COC or COA data does not constitute receiving testing.

Quality Clause Code	Clause Name	Clause Text
QC105	CERTIFICATE OF CONFORMANCE – ULA DEFINED METALLIC MATERIAL	This Contract contains requirements for metallic material(s) controlled by ULA material specification(s) owned by ULA Parts, Materials, and Processes (PMP) Engineering. The ULA material specifications are coversheets for industry specifications and include additional, critical material requirements. To ensure these additional material requirements are met, the Supplier Data Transmittal (SDT) shall include the original material certificate(s) for each material lot in the Contract and a PMP Engineer signature shall be **REQUIRED** for approval of the SDT.