

LORD Corporation

Local Work Instruction

Title: Purchase Order Supplement

Supplier Access:

Suppliers shall use the following internet access for additional information or documentation submittals. All attachments to LORD contacts or mailboxes shall be sent using Kiteworks.

- LORD Supplier Web Page: <https://www.lord.com/our-company/suppliers>
- LORD Supplier Request Submittal: *Email directly to LORD contact (Supplier Quality Engineer or LORD Buyer) using Kiteworks for the SR form.*
- LORD Secure File Transfer Site: <https://newsftp.lord.com>
- LORD Secure Mailbox: <https://newsftp.lord.com>
 - Use the LORD Facility mailboxes below for electronic document submission. For LORD Facilities not listed below, manual documentation submittal or electronic submittal through Kiteworks is required.

Product Ship-To Location	https://newsftp.lord.com recipient
LORD Bowling Green Facility: Bowling Green, KY	DL-LBGRI@PARKER.COM
LORD Cambridge Springs Facility; Cambridge Springs, PA	DL-LCSRI@PARKER.COM
LORD Dayton Facility: Dayton, OH	DL-LDYRI@PARKER.COM
LORD Erie Facility: Erie, PA	DL-LERRI@PARKER.COM
Frozen Planning Submission for all facilities	DL-FROZEN_PLANNING@PARKER.COM

Standard Purchase Order Terms and Conditions

Standard Terms and Conditions of Purchase: See the "Terms and Conditions of Purchase" link on the LORD Supplier web page.

Standard Quality Requirements

The following LORD Standard Quality Clauses are invoked on all LORD purchase orders and are applicable to all suppliers. Contact the LORD Sourcing Representative or the LORD Supplier Quality Engineer for any exceptions or additional information regarding the following clauses.

A.	Quality System: The supplier shall have a documented quality system and agree to on-site assessments. Suppliers are required to have a quality system in place that conforms to AS9100, ISO 9001, or Nadcap AC7004. Manufacturers of material used in production manufacturing at LORD Corporation are required to maintain third-party certification of their quality system to one of these standards, or have a goal to achieve third-party certification, unless exempted by LORD Corporation in writing. The supplier shall notify LORD Quality within 24 hours if their accreditation/certification is lost, revoked, or suspended.
B.	Right of Access: LORD Corporation, LORD's customer, LORD's customer's representative, government agencies, and regulatory agencies shall have the right of entry into the supplier's facility or that of their subcontractors, suppliers, and/or business partners. Entry shall provide for access to quality system documentation, manufacturing processes, quality records as well as the ability to conduct audits, verify product and processes.
C.	Advanced Product Quality Planning (APQP): The supplier shall have resources available and be capable of participating in Advanced Product Quality Planning (APQP), if requested. The supplier shall support the APQP process which may include such efforts as Value Engineering/Value Analysis (VE/VA), Feasibility Reviews, Failure Mode and Effect Analysis (FMEA - Process and/or Design), Design Review, Prototype Production, and Initial Sample Approval/Production Part Approval Process (PPAP). If a LORD purchase order is received for a new part or a part that has not produced/processed within the most recent two year period, contact the LORD Supplier Quality Engineer or LORD Sourcing Representative to schedule an APQP review prior to proceeding with the purchase order. For a sub-tier source change, contact the LORD Supplier Quality Engineer for the opportunity to participate in the APQP activity with the supplier and the sub-tier supplier.

D.	Material and Process Specifications: The supplier shall produce LORD product to the specific material and process specifications referenced on the LORD drawing or LORD purchase order. Suppliers shall work to the specification revision listed in the LORD Specification Index (located in the LORD Secure File Transfer Site) in effect at the time the LORD purchase order was issued. <ul style="list-style-type: none">For parts manufactured/processed to a prior drawing or specification revision: The supplier shall determine if the parts meet the current drawing/specification requirements. If the requirements are met, the supplier shall update the certifications per Standard Quality Clause W to the current revision and ship as conforming product. If the requirements are not met, the product must be submitted on a Supplier Request (refer to Standard Clause P) or reworked into compliance. A Supplier Request is not required if the raw material was produced to a prior specification revision within the last 18 months.For parts manufactured/processed to a later material or specification revision: Parts that are manufactured/processed using material and/or process specifications to a later revision than that specified in the LORD Specification Index is permissible, except in the cases where Special Quality Clauses 062 and 402 are invoked on the LORD purchase order. In those cases, adherence to clauses 062 and 402 is required.Alternate Material: Suppliers may only use the LORD engineering drawing specified alternate material(s) after approval of a Supplier Request (refer to Stand Quality Clause P) and approval of a new/updated First Article Inspection Report by LORD Quality (refer to Standard Clause H. First Article Inspection Report Approval).
E.	Conflicting Technical Requirements: In the event of conflicting technical requirements, the order of precedence is the LORD purchase order, the LORD engineering drawing, then the specification requirements. If necessary, contact the LORD Supplier Quality Engineer and/or the LORD Sourcing Representative for assistance. All conflicting technical requirements should be submitted on a Supplier Request (refer to Standard Clause P) for formal disposition and permanent resolution.
F.	Supply Chain Management: The supplier shall identify and manage their entire supply chain, which includes ongoing monitoring of sub-contractor quality and delivery performance. It is the supplier's responsibility to ensure that LORD Corporation requirements are met by all subcontractors used in the entire manufacturing process. LORD Corporation will monitor the supplier's quality and delivery performance. Other performance metrics may be monitored as needed per review with the supplier.
G.	Foreign Object Damage (FOD) Prevention: The supplier shall maintain a documented Foreign Object Damage (FOD) program shall comply with requirements of SAE AS9146, <i>Foreign Object Damage (FOD) Prevention Program</i> , and in accordance with the guidance provided in National Aerospace Standard NAS412, <i>Foreign Object Damage/Foreign Object Debris (FOD) Prevention</i> . The supplier shall ensure that Foreign Objects (FO) and subsequent Foreign Object Damage (FOD) is eliminated from all parts or items prior to shipment. <u>General FOD Requirements:</u> <ul style="list-style-type: none">The supplier shall maintain a FOD free environment during machining, manufacturing, assembly, maintenance, inspection, storage, packaging, and shipping.Potential FOD includes (but is not limited to) burrs, chips, dirt, corrosion, and contamination resulting from the manufacturing, assembly, maintenance, processing, cleaning, storage and subsequent packaging of parts.Verification that all passageways - cast and/or machined are clear of chips, core material, dirt, breakout of cast walls, etc.Verification that inaccessible or obscured areas and compartments are FOD free prior to closing or sealing those areas during assembly.Specific attention should be given, where applicable, to items such as:<ul style="list-style-type: none">Housekeeping and cleanlinessFood and beverage controlTool and small part accountabilityLoose objectsMaterial handling and parts protectionExternal cleaning following evidence of external contamination <u>Training:</u> The supplier shall ensure that the responsibility for the FOD prevention program is clearly defined and appropriate personnel have received FOD awareness training. Training shall include (but is not limited to) the following topics: <ul style="list-style-type: none">Causes and effects of FODProtection of productGeneral housekeeping program and formal 5-S practicesClean as you go principlesTool control/accountabilityUnrestricted hardware control/accountabilityConsumable control / accountability

<p>H.</p>	<p>First Article Inspection Report Approval: For product manufactured to LORD engineering drawing requirements, the supplier shall complete a First Article Inspection (FAI) Report in accordance with the requirements of LORD Operating Procedure LOP-383, <i>First Article Inspection</i> (located in the LORD Secure File Transfer Site). This requirement is not applicable to metallic raw materials, non-metallic raw materials, sub-tier special processors, and industry standard hardware. The FAI shall be completed using the applicable LOP-383 Form, the AS9102 Forms 1 through 3, or an equivalent form. The LOP-383 forms and the LORD AS9102 Form 3 are available on the LORD Supplier web page (under "About Supply Chain"). If Special Quality Clause 195 is invoked on the LORD purchase order, then only the AS9102 Forms (Forms 1, 2, and LORD Form 3) may be used.</p> <p><u>Requirements for FAI Submittal:</u> The supplier shall complete and submit a new or updated (delta) FAI for the following conditions (refer to LORD Procedure LOP-383 for additional details):</p> <ul style="list-style-type: none"> • This is a first time manufacture • The use of the specified alternate material (provided there is not a previously approved FAI on file for the alternate material) • There is a change in tooling (new, replacement, or major modification) at the supplier's facility or at the supplier's sub-tier facility • A change in the manufacturing process, at the supplier's facility or at the supplier's sub-tier facility, which may affect form, fit, function, or interchangeability of the product • A change in the plant of manufacture • A revision to the LORD engineering drawing (per LORD purchase order) • A change in the supplier's sub-tier special process provider • A change in the source of manufacture (applies to Distributors/brokerage houses) • The part has not been manufactured in two years. Note: if there has been a lapse in delivery and not a lapse in production, a copy of the last full FAI report and all subsequent delta FAI reports may be submitted to LORD Quality without re-performing the FAI, provided all conditions for not requiring a new FAI are met <p><u>Additional Submission Requirements:</u></p> <ul style="list-style-type: none"> • Suppliers shall submit the initial or updated (delta) FAI regardless if Special Quality Clause 069 is invoked on the LORD purchase order. • Certifications are required to be submitted for initial FAI submission, changes to the plant of manufacture, and a lapse of production of two years or more. For all other changes, certifications are only required to be submitted if the feature for which the updated (delta) FAI being completed is affected by a certification (i.e. special process or material change) or if the affected change requires certification through any other applicable quality clauses. • For any process accepted by certification, certifications shall be validated using LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> (available on the LORD Supplier web page, under "Key Documents"). The checklist and associated process certifications shall be submitted with the FAI package. • Inspection methods identified on the FAI are the methods to be used by the supplier and LORD Corporation for sample and final inspection. Changes to the inspection methods shall be approved by the re-evaluation and re-signing of the FAI by both the supplier and LORD Quality or as agreed upon during the APQP process with the LORD Supplier Quality Engineer. • For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on <u>each page</u> of the FAI forms
<p>I.</p>	<p>Managing Change: The supplier shall notify the LORD Supplier Quality Engineer or LORD Sourcing Representative of any intended significant changes to their process, methods, material, or product and obtain LORD Quality approval prior to implementation. The supplier shall also make this a condition of their entire supply chain. Samples and documentation may be required as part of the approval process. Suppliers shall notify the LORD Supplier Quality Engineer or LORD Sourcing Representative in writing of any significant facility or organizational changes in company name, company location, or senior quality/manufacturing management personnel.</p>
<p>J.</p>	<p>Material Obsolescence: The supplier shall notify LORD Corporation six months prior to obsolescence of any material purchased by LORD Corporation within the last three years.</p>
<p>K.</p>	<p>LORD Approved Coolants: When specified on the LORD engineering drawing, suppliers shall only use material (i.e. coolants, cutting fluids, mold release agents, surface protectants, etc.) in the fabrication and/or surface protection of product that has been qualified and approved by LORD Corporation. Refer to LORD Specification MTL-S-0136 and the associated appendices (located in the LORD Secure File Transfer Site) for a listing of approved materials.</p> <ul style="list-style-type: none"> • Manufacturers of powdered metal components shall refer to LORD Specification PRC-S-0226, <i>Processing and Handling of Powdered Metal Parts</i> (located in the LORD Secure File Transfer Site), and shall only use the materials specifically approved for powdered metals. For a listing of approved materials, refer to LORD Specification MTL-S-0136 appendices MTL-S-0136-004 and MTL-S-0136-005 (located in the LORD Secure File Transfer Site). • The supplier shall obtain written approval via a Supplier Request (refer to Standard Clause P) for any product/material not listed LORD Specification MTL-S-0136 prior to manufacture of the first lot of parts.

L.	<p>Non-conventional machining such as Electric Discharge Machining (EDM), Laser Cutting, Plasma Cutting, or any process that uses heat generating methods for material removal: The supplier shall obtain written approval via a Supplier Request (refer to Standard Clause P) for any part produced using these heat generating methods. An approved Supplier Request is required prior to manufacture of parts. Approval via a Supplier Request is required for each individual part number produced by the supplier, regardless of any LORD engineering drawing notes or manufacturing methods as stated on the quotation to LORD Corporation. Refer to LORD Specification PRC-S-0230, <i>Heat Generating Material Removal Processes</i>, (located in the LORD Secure File Transfer Site) for additional information and requirements.</p>
M.	<p>Mercury Contamination: The supplier shall not furnish any material that contains mercury or mercury compounds for the proper function of the material, or that is contaminated by mercury or mercury compounds.</p>
N.	<p>Traceability and Serialization: The supplier shall provide unique identification of product batch number, lot number, or serial number (if required by the LORD Engineering drawing). The batch number, lot number, and serial number (if applicable) shall be traceable to all raw material, manufacturing, and inspection records.</p> <ul style="list-style-type: none"> • If raw material is supplied by LORD Corporation, the supplier shall assure that parts supplied are traceable to the raw material heat code or the LORD assigned traceability number by the lot number or serial number. • If items supplied by LORD Corporation are serialized, the supplier shall assure traceability is maintained during the manufacturing process. • If parts are serialized, the supplier shall provide a list of the serial numbers with each shipment (either on the packing slip or on an attached separate sheet). • If parts are Electronic Assemblies, the traceability includes tracing of all components to their location identifiers on the boards (if required by the LORD Engineering drawing). • Serialized components that are used in a serialized assembly shall have direct traceability to that serialized assembly.
O.	<p>Inspection: The supplier shall utilize an Inspection Checklist which contains all LORD engineering drawing attributes (dimensions, material, notes, and title block requirements), any special LORD purchase order requirements, the quantity of parts in the manufacturing lot, and a list of serial numbers of the parts in manufacturing lot (if applicable). The following shall be listed for each item on the Inspection Checklist:</p> <ul style="list-style-type: none"> • quantity of parts inspected • inspection level (i.e., 100% or specific sampling plan) • method of inspection • quantity accepted • quantity rejected • operator inspection stamp <p><u>Sampling:</u> The supplier shall inspect product to the degree necessary to ensure compliance to all LORD requirements, which may result in a higher sampling level than required by the minimum industry specified sampling plans (i.e. ANSI/ASQ Z1.4) or LORD customer requirements. Suppliers shall comply with 100% inspection if specified by the LORD engineering drawing, another specification referenced on the drawing, additional quality clauses, or the LORD purchase order. Sampling plans shall utilize a 1.0 AQL with zero defectives permitted in the sample.</p> <p><u>Additional Inspection Requirements:</u></p> <ul style="list-style-type: none"> • Unless specifically required by the LORD engineering drawing or as required by a LORD Special Quality Clause, actual recording of the inspection results is not required. If recording of results is required and parts are serialized, then the results must be recorded by serial number. • Unless otherwise specified by the LORD engineering drawing, dimensional limits apply after the application of specified inorganic coatings (e.g., plating and chemical treatments), but before the application of specified organic coatings (primers, paint, solid film lubricants, corrosion preventative compounds, etc.). Chemical treatments include chromic acid anodize, sulfuric acid anodize, hard anodize, chemical conversion coating (chemical film), and passivation. • When rework (polishing, lapping, honing, etc.) is permissible to a shot peened surface to achieve dimensional requirements, before and after dimensional inspection results must be provided (by serial number or individual identification) for the reworked surface/feature to verify and validate the permissible material removal. • The inspection methods used shall be the methods established and approved during APQP and used during the First Article Inspection (FAI). LORD Technical Standard TS-026, <i>Standard Measuring Methods</i>, (located in the LORD Secure File Transfer Site) shall be used by the supplier for legacy product in cases where APQP was not performed. <ul style="list-style-type: none"> ○ Inspection methods identified on the supplier FAI are the methods to be used by the supplier and LORD Inspection for sample and final inspection. Changes shall be approved by the re-evaluation and re-signing of the FAI by both the supplier and LORD or as agreed upon with the LORD Supplier Quality Engineer.

<p>P.</p>	<p>Supplier Request (SR): The supplier shall submit a Supplier Request (SR) for any nonconformance, for any material that does not meet all the requirements of the LORD purchase order, drawing, or specification, or for any of the conditions listed below. The supplier shall submit all Supplier Requests to LORD Corporation through email submission to the LORD contact (Supplier Quality Engineer, Quality Engineer or LORD Buyer) using Kiteworks. A copy of the Supplier Request shall accompany each shipment for which it applies. Multiple purchase orders may be referenced on the same Supplier Request. The supplier shall obtain LORD Supplier Quality Engineer/Quality Engineer concurrence prior to submitting a Supplier Request for nonconforming material (i.e. a Type I or Type II nonconformance).</p> <p>Supplier Requests shall be submitted using the categories listed below. Form 655 allows for the major choices of Nonconformance, Change, Interpretation, Gage, and Frozen Planning. If other than these, note the category along with the request description in the Description of the Request field. Note: the categories listed below are not all inclusive and only describe the most common submittals:</p> <ul style="list-style-type: none">• Nonconformance (Type I - Major or Type II - Minor): A nonconformance to the specified requirement where the supplier or supplier's sub-tier supplier is the cause of the nonconformance. A Supplier Corrective Action Request (SCAR) shall be completed per Standard Quality Clause S as directed by the LORD Supplier Quality Engineer.• Request to strip coating and re-process: When required by the LORD drawing, approval by LORD Engineering to strip coating and re-process. A Supplier Corrective Action Request (SCAR) shall be completed per Standard Quality Clause S as directed by the LORD Supplier Quality Engineer.• Change Request: Requests for engineering changes (i.e., drawings, specifications).• Interpretation Request: Requests for technical clarification of LORD drawings, LORD customer drawings, or other specified requirements.• Gage request: Request to borrow LORD measurement and test equipment.• Frozen Planning approval: Submission of frozen planning and/or rework planning.• Obso Inv caused by Dwg/Spec chg at LORD: Request for disposition of supplier inventory manufactured to a prior revision (refer to Standard Quality Clause D for further information).• Other LORD needed apprv/LORD info req: Request for the supplier to submit information due to a LORD request or requirement. Approval to use a material or process specification to a later revision, except where permissible per Standard Quality Clause D.• Material substit/alt. source request: Request to allow substitution of a material or supply source other than that specified on the drawing, specification, or LORD purchase order, as well as the use of an alternate material listed on the drawing for which the supplier has not yet previously used in the manufacture of that specific part number.• Less complete per LORD request: Request to ship product without all operations/processes being completed. In all cases, the supplier shall submit an Supplier Request to obtain LORD Engineering approval prior to shipment (regardless if LORD Corporation or the supplier initiated the request).• Melt certs not available: Request to ship product where the material melt certifications are not available for the raw material (particularly standard hardware). In all cases, the supplier shall submit an Supplier Request to obtain LORD Engineering approval prior to shipment (regardless if LORD Corporation or the supplier initiated the request).• Expired shelf life: Request to allow use of product that is beyond the shelf life requirements. In all cases, the supplier shall submit an Supplier Request to obtain LORD Engineering approval prior to shipment (regardless if LORD Corporation or the supplier initiated the request).• Samples/Request for evaluation: Request to submit product/material samples as part of a correlation study or other request (originally requested by LORD Quality or Engineering). The samples may be sent to LORD Corporation on an open, undispositioned Supplier Request. The shipping paperwork from the supplier shall clearly indicate the parts are representative samples and identify the respective LORD Supplier Quality Engineer.• NDT Technique Sheet approval: Submittal for approval of process specific techniques, plans, or procedures.• LORD furnished material problem: Submittal of nonconforming LORD furnished material that cannot be properly processed by the supplier.• EDM/Laser/Plasma Methods Approval: Approval for the use of any non-conventional machining method as detailed per Standard Quality Clause L.• LORD initiated chg on current order: A request for clarification or direction on existing inventory or work-in-process (WIP) that does not meet the below requirements.<ul style="list-style-type: none">○ A Supplier Request is not required if parts were manufactured to a prior drawing or specification revision, yet still meet all the requirements of the revised drawing or specification. The supplier shall update the certifications to indicate such and ship as conforming product (for example, "Parts manufactured to Rev A and meet all requirements of Rev B").○ A Supplier Request is not required if a LORD Product Change Notice (PCN) indicates that the supplier's inventory of completed product and/or work-in-process (WIP) is dispositioned "USE AS IS" to the previous revision. The supplier may ship as conforming product and shall update the certifications
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	<p>and/or shipping paperwork with the following (as an example): "Parts manufactured to Rev A and are being shipped per a "USE AS IS" disposition on PCN 123456".</p> <ul style="list-style-type: none"> ○ A Supplier Request may be required to determine if parts in process need reworked due to a LORD initiated drawing change that does not have a "USE AS IS" disposition. ○ Contact your LORD Supplier Quality Engineer or LORD Sourcing Representative for instructions regarding any LORD PCNs that state to scrap or rework product in inventory or in-process.
<p>Q.</p>	<p>LORD Supplied Measurement and Test Equipment: The supplier shall return any LORD supplied measurement or test equipment at least one week prior to the calibration due date. Return all equipment to the attention of the "Gage Lab" at the respective LORD facility. Suppliers are not authorized to perform any calibration on any LORD-owned equipment unless specifically approved via a Supplier Request (refer to Standard Quality Clause P). If submitting a supplier request to perform calibration outside of LORD Corporation, the request shall identify the calibration facility and certification (with results of the calibration) shall be provided to LORD Quality.</p> <p>Standard gages, such as thread gages, plug gages, dial bores, thread indicating gages (i.e.: tri-rolls), should be purchased and maintained by the supplier. The supplier shall review and address these needs before accepting a LORD Purchase Order.</p>
<p>R.</p>	<p>Non-Conforming Product: The supplier shall only ship product that conforms to all requirements, or obtain a written deviation via a Supplier Request (refer to Standard Quality Clause P) prior to shipment of any non-conforming product. If a Supplier Request is approved, the supplier shall reference the Supplier Request number on the shipping documents and LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i>, if sending the form with the shipment. A copy of the approved Supplier Request shall be included with each shipment for which the Supplier Request is applicable. Final material acceptance will depend on the actual verification of the non-conformance and product approval at LORD Corporation. All product dispositions and related disposition requirements shall be retained in accordance with the Records clause (refer to Standard Quality Clause X).</p> <p><u>Non-Conforming Material Escapes:</u> If non-conforming material has been supplied to LORD Corporation without the proper Supplier Request approval or <i>the possibility</i> that non-conforming material may have been supplied to LORD Corporation without the proper Supplier Request approval, the supplier shall immediately:</p> <ul style="list-style-type: none"> • Submit a Supplier Request (refer to Standard Quality Clause P) identifying the material and detailing the escape. • Begin a corrective action plan with immediate containment actions (refer to Standard Quality Clause S). • Contact the LORD Supplier Quality Engineer and LORD Sourcing Representative to disclose the escape.
<p>S.</p>	<p>Corrective Action: For a non-conformance related to the supplier's product, a written corrective action report using LORD Form LOP-053F1 (available on the LORD Supplier web page under "About Supply Chain") is required from the supplier. The Supplier Corrective Action Report (SCAR) shall address the problem definition, define containment action, determine root cause(s) of the non-conformance, identify corrective action plan(s) or contingency actions, determine implementation timing, and implement system, practice, or procedure changes to prevent recurrence. The completed SCAR is due 20 calendar days from the notification or as specified by LORD Supplier Quality Engineer. Within <i>24 hours</i> of being notified by LORD Corporation, the supplier shall:</p> <ul style="list-style-type: none"> • Take containment action at their facilities and all sub-tier facilities • Notify the LORD Supplier Quality Engineer of: <ul style="list-style-type: none"> ○ Any other lots of the same LORD part number shipped to LORD Corporation or in transit to LORD Corporation since the non-conforming lot was manufactured ○ Any other part numbers that may have been affected and their shipment dates and lot quantities. ○ Perform 100% inspection on all pieces prior to shipping to LORD Corporation until the corrective action is implemented. After the corrective action is implemented, the supplier shall perform 100% inspection on all lots until three acceptable consecutive lots are shipped. Sequential sampling or SPC may be used in lieu of 100% inspection. Sequential sampling includes the sampling of every X number of pieces during sequential manufacture, provided all pieces are contained between the samples. If a nonconformance is detected, subsequent 100% inspection shall occur between the last accepted piece and the nonconforming pieces detected.

<p>T.</p>	<p>Protection Requirements for In-Process, Shipment, and Packaging: The supplier shall comply with all requirements for shipping, packaging, and labeling. In the absence of specific requirements, suitable protection from corrosion, contamination, and handling damage shall be provided during manufacturing, in-transit to and from the supplier's sub-tier processor(s), and during shipment to LORD Corporation. Metallic parts shall be protected against corrosion and damage, and non-metallic parts against deterioration, damage, and contamination by other materials.</p> <p><u>General Corrosion Control Requirements Throughout Processing:</u></p> <ul style="list-style-type: none">a) For machined metallic parts (especially aluminum alloys), avoid prolonged exposure to water-soluble cutting fluids and drying of the water-soluble cutting fluids on any on surface at any stage of the manufacturing process. This is a known cause of corrosion and shall always be avoided.b) Except for when actual work (i.e. machining, processing, inspection, etc.) is being performed on metallic parts with non-protected surfaces, the parts shall be protected at all times by one of the following:<ul style="list-style-type: none">1. Place parts in a volatile corrosion inhibitor (VCI) bag. Filtered air shall be used to remove any excess coolant after machining. Parts are to be dry prior to placing in a VCI bag. VCI bags shall be closed at all times when parts are in the VCI bag(s). Do not use VCI bags on zinc plated parts.2. Coat with a non-volatile, corrosion protecting oil. If bags are used with the oil, they shall be non-porous plastic bags (not VCI bags).c) Unprotected surfaces of parts requiring cleaning to remove residue or contamination are to be alkaline cleaned or cleaned with a non-chlorinated solvent. Examples of non-chlorinated solvents are MEK and isopropyl alcohol. <p><u>Corrosion Protection Requirements for Packaging and Shipment:</u></p> <p>Corrosion protection is not required for metallic parts made from titanium or inconel alloys or for metallic parts which are completely anodized, chromate conversion coated (alodine), plated, passivated, and/or have organic coatings applied (i.e. primer, paint, solid film lubricants, etc.). Unprotected surfaces of all other metallic parts shall be protected per the following (as applicable):</p> <ul style="list-style-type: none">a) For powdered metal parts, use only the LORD approved surface protectants identified in LORD Specification MTL-S-0136, appendix MTL-S-0136-004 (located in the LORD Secure File Transfer Site).b) All parts (except as noted below) with any unprotected surfaces shall be protected by placing in a volatile corrosion inhibitor (VCI) bag. Do not oil parts prior to placing the parts in the VCI bags (as this combination assists in the initiation of surface corrosion). VCI bags shall be closed at all times when parts are in the VCI bag(s). Do not use VCI bags on zinc plated parts.<ul style="list-style-type: none">1. For the more corrosion-prone metals, such as 4XXX alloy steels, 7XXX series aluminum alloys, 2024 aluminum, and 12L14 and other low alloy steels; application of a non-volatile, corrosion protecting oil followed by packaging in non-porous plastic bags may be performed in lieu of packaging in VCI bags. This provides additional corrosion protection as compared to packing in VCI bags alone, and is recommended, especially when time in transit or storage is expected to be long. Only use the LORD approved surface protectants identified in LORD Specification MTL-S-0136, appendix MTL-S-0136-002 (located in the LORD Secure File Transfer Site).2. All 303Se parts or other free machining metals shall follow requirements of item 1 above.c) Additional protection may be required if parts are to be held or transported in a particularly humid or corrosive environment (i.e. ocean shipment).d) Corrosion protection as defined in the APQP process may override the above items, provided the methods are reviewed and agreed upon by the LORD Supplier Quality Engineer. <p><u>Protection of Product for Shipping:</u></p> <p>Where not specified, containers used during manufacturing, in-transit to and from the supplier's sub-tier processor(s), and for shipment to LORD Corporation shall be selected using the following guidelines:</p> <ul style="list-style-type: none">a) Parts that are plated and subsequently chromate treated are more susceptible to chromate non-conformances. Drying time of the chromate beyond the minimum specified requirements may be required prior to handling and packaging. Special attention to the types of drying surfaces and packaging material is required at the processing facilities and throughout the chain of custody from processing to delivery to LORD Corporation.b) The container and packaging material selected shall not permit part to part contact.c) Containers used during manufacturing shall have covering adequate to prevent contamination.d) Stacking of parts/assemblies within a container is only permissible for flat parts/assemblies and with adequate separation between parts/assemblies.e) All packages shall be inspected for the absence of foreign objects (FOD) prior to sealing the package.f) Padding of internal areas of the containers shall be made with suitable materials and shall not cause corrosion.g) Containers shall be sufficiently robust to withstand the shock loads of transportation with appropriate restraint for the parts. Shipments using an ocean liner or courier services will need additional shock load protection to prevent transit damage.h) Product with external connectors shall have protective caps in place.
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U.	ESD Sensitive Items: The supplier shall use electrostatic discharge (ESD) protective containers or bags when packaging materials that are sensitive to damage from ESD. Identify each container or bag with an ESD warning label and label the external shipping package "Contains Static Susceptible Item" or equivalent. Parts classified as ESD parts on the LORD drawing or specification shall be handled in accordance with LORD Specification SOP 15-05, <i>Electrostatic Sensitive Devices (ESD)</i> (located in the LORD Secure File Transfer Site).
V.	Age Control: The supplier shall assure that any items provided which have shelf life limitations, have at least 5/6 of the shelf life remaining at time of shipment, unless a special age control requirement is specified by a Special Quality Clause invoked on the purchase order.
W.	<p>Certification: A certification package accurately reflecting the manufacturing and inspection processes of the supplier and their sub-tier suppliers shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. The certification package shall consist of documentation/certification (i.e. raw material, special processes, test reports, inspection results, etc.) related to the manufacture of the product. Certifications shall be in English, or translated to English. Translations shall include the name, title, and signature of the authorized representative of the company making the translation. LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i>, (available on the LORD Supplier web page, under "Key Documents") shall be used by the supplier and submitted as part of the certification package. The certification package shall include the following information (as applicable) per the checklist; however, note the instructions in the checklist (Form LWI-0774f1) for the required information to be submitted per the applicable special quality clauses:</p> <ul style="list-style-type: none"> • Name/address of facility that manufactured the material, or performed the process or test • LORD Purchase Order Number • LORD Part Number and Revision. LORD part number revision is the revision listed on the LORD Sheet 1 drawing. • LORD Customer Part Number, revision, and contract number (only when it appears on the LORD purchase order or LORD Drawing) • Process performed or material provided, including type, class, or grade, as applicable • Specification number including revision level, along with any applicable amendments and deviations • Quantity accepted/rejected (for Certified Test Reports) • Quantity shipped • Date shipped • Name and/or title of authorized representative from the company that manufactured the material, or performed the process or test. For suppliers who utilize electronic signatures, the Quality Manager title is sufficient. • Unique traceability number (certification number, heat code number, batch number, melt number, etc.) • Part serial numbers, if applicable. • Statement certifying that articles covered by the certification are in compliance with the applicable purchase order, drawing and specification requirements. • If parts were manufactured to a prior drawing or specification revision, yet still meet all the requirements of the revised drawing or specification, the certification package shall be updated/revised accordingly. Refer to Standard Quality P for additional details. • If parts were manufactured to a prior drawing revision and the LORD Product Change Notice (PCN) states "USE AS IS" for the previous revision, the certification package shall be noted accordingly. Refer to Standard Quality P for additional details. • For Classified Parts, any product shipments will require the frozen planning revision stated on the LORD checklist (Form LWI-0774f1). <p>Note: For Special Quality Clauses 090 and 140, follow the instructions listed in those clauses for certification requirements. Special Quality Clauses 090b and 140b allow for the use of documentation in place of the LORD checklist (Form LWI-0774f1) provided the minimum requirements are met.</p> <p><u>Certification Submittal:</u> The certification package:</p> <ul style="list-style-type: none"> • shall be submitted electronically via the LORD Secure File Transfer mailboxes (see "Supplier Access" at the beginning of this document). Enter the recipient as the LORD Receiving Inspection mailbox matching the shipment location. See the LORD checklist (Form LWI-0774f1) for additional instructions. The supplier shall contact the LORD Supplier Quality Engineer if an alternate submittal method is needed or to determine the submittal method for LORD facilities that do not have a secure electronic mailbox. • shall be electronically stored on the secure supplier portal by LORD purchase order number. LORD Corporation shall be granted access to the secure supplier portal for retrieval of the certification package. • is not required to be submitted if Special Quality Clause 069 is invoked on the LORD purchase order and this is <i>not</i> a First Article Inspection (FAI) shipment.

X.	Records: Suppliers shall maintain production and quality-related records for a minimum of fifteen (15) years from the date of shipment, unless a longer period is specified by a Special Quality Clause invoked on the LORD purchase order. LORD Corporation shall have access to the applicable production and quality related records upon request. Supplier shall contact the LORD Quality Department to obtain instructions prior to the destruction or disposal of production and quality-related records. Suppliers that are going out of business or no longer intend to manufacture the product shall contact the LORD Quality Department to obtain instructions with respect to records.
Y.	Rework and Repair: <ul style="list-style-type: none">• Rework and Repair are distinctly different processes and are defined per the following:<ul style="list-style-type: none">○ Rework is a process where a non-conformance to the drawing, specification, or contract requirement can be made to conform using processes equivalent to those originally used in the manufacturing of the product. Suppliers are not required to obtain approval to rework product unless Special Quality Clause 021 is invoked on the LORD purchase order, which requires rework approval. Per Special Quality Clause 171, any violations of the Frozen Planning process always requires approval for rework.○ Repair is a process that reduces but does not completely eliminate a non-conformance or when a process is used that is NOT equivalent to those originally used in the manufacturing of the product. Suppliers shall obtain LORD Engineering approval via a Supplier Request (refer to Standard Quality Clause P) prior to performing repair work and shipping repaired product, due to the still nonconforming condition and/or the repair method used.• Reworked/repaired parts shall be re-inspected using the same methods and equipment that originally identified the non-conformance, as well as re-inspection of any other features that may have been affected by the rework.• For electronic items that require acceptance testing as part of their original quality requirements, the same acceptance testing will be required after rework/repair of the product.• When returning reworked/repaired parts to LORD Corporation, the shipping or certification paperwork shall identify that rework or repair was performed and shall make reference to either the approved Supplier Request or the discrepancy report (notification) that authorized the rework/repair (as applicable). If outside processes were required to be re-processed, the process certifications shall also reflect the rework/repair status of the parts and be included in the shipping or certification paperwork, regardless if Special Quality Clause 069 is invoked on the LORD purchase order.• In some instances, LORD may decide to rework or repair supplied product, in which case LORD will contact the supplier to discuss the costs of the rework and potential chargeback to the supplier.• For threaded holes, suppliers are not permitted to modify the major or minor diameter of a threaded hole when there is a location requirement (i.e. true position, concentricity, etc) to or from the major or minor diameter of that thread without modifying the entire thread form. Any variation to the requirement will require written approval via a Supplier Request.• For rework of shot peened surfaces <i>where permissible per the governing process specification</i>, before and after actual dimensional inspection results must be provided (by serial number or individual identification) for the reworked surface/feature to verify and validate the permissible material removal. This rework generally includes polishing, lapping, or honing to achieve dimensional results however must be in accordance with the governing process specification.
Z.	Classified Part Suppliers/Processors: Suppliers of classified parts (i.e. FLIGHT SAFETY, CRITICAL, PRIMARY, VITAL, CRITICAL SAFETY ITEM, etc.) or a special process provider that creates or affects a Critical "<C>" or Significant "<V>" characteristic shall provide initial and annual classified part awareness training to all personnel involved in the manufacture and inspection of that part number (i.e. engineering, manufacturing, quality, shipping, etc). Suppliers shall also conduct an annual internal audit to the classified part requirements (suppliers may use LORD Form 0601-16, <i>Supplier Assessment Classified Parts</i> , (located in the LORD Secure File Transfer Site) for the internal audit). All training and audit results shall be documented and maintained for a minimum of ten years. Suppliers that are going out of business or no longer intend to maintain a classified part approval status shall contact LORD Corporation to obtain instructions with respect to records.

AA.	<p>Counterfeit Part Prevention – All Product (Both Electronics and Non-Electronic Products/Components): Suppliers that are purchasing parts and materials for inclusion into product or assemblies being delivered to LORD Corporation shall establish and maintain a system to prevent the purchase of counterfeit, suspect counterfeit, and substandard parts and their inclusion in product delivered to LORD Corporation. The system shall meet the intent of SAE AS6174, <i>Counterfeit Material; Assuring Acquisition of Authentic and Conforming Material</i>, and SAE AS5553, <i>Counterfeit Electronic Parts; Avoidance, Detection, Mitigation and Disposition</i>. The system shall ensure item traceability to the OCM/OEM records and these records shall be supplied to LORD Corporation upon request. When procurement is going to be made from an Independent Distributor/Broker, LORD Corporation approval is required. Suppliers shall obtain a written deviation via Supplier Request (refer to Standard Quality Clause P) prior to purchase and use of the component in the LORD product. Suppliers shall have traceability for non-electrical standard parts (fasteners, nuts, washers, o’rings, etc.), electronic component parts, raw materials, and any other components/materials used in the manufacture of parts being delivered to LORD Corporation, to the Original Component Manufacturer (OCM), Original Equipment Manufacturer (OEM), Authorized Aftermarket Manufacturer (AAM), or authorized distributor. The supplier shall obtain approval via a Supplier Request (refer to Standard Clause P) for use or shipment of material with broken traceability or material provided from a non-authorized supplier. Certification of product being purchased shall include name and location of all supply chain intermediaries from the original manufacturer to final source providing product. Reference additional traceability and certification requirements as specified in Standard Quality Clauses N and W (respectively) and any Special Quality Clauses that are invoked on the LORD purchase order.</p> <p>If suspect/counterfeit parts are furnished under a LORD purchase order, or are found in any goods, the goods delivered thereunder and the items furnished will be quarantined by LORD Corporation. The seller shall promptly replace such suspect/counterfeit parts with parts that are acceptable to LORD Corporation. The seller shall be liable for all costs relating to the removal and replacement of said parts. LORD Corporation reserves all contractual rights and remedies to address grievances and detrimental impacts caused by suspect/counterfeit parts.</p> <p><u>Original Component Manufacturer (OCM) / Original Equipment Manufacturer (OEM):</u> The supply chain entity who designs and controls the manufacture of an item. The OCM/OEM warrants performance of the item to its published specifications</p> <p><u>Franchised/Authorized Distributor:</u> A seller that has a contractual relationship with the OCM/OEM to buy, stock, re-package, and sell its product lines. A Franchised/Authorized Distributor offers the OCM/OEM’s full flow through warranty including failure analysis and corrective action support.</p> <p><u>Independent Distributor/Broker:</u> Any seller that does not have a contractual relationship with the OCM/OEM to stock and sell its products. An Independent Distributor/ Broker selected for use in supply for a LORD Electronic assembly shall be SAE AS6081, <i>Fraudulent/ Counterfeit Electronic Parts: Avoidance, Detection, Mitigation and Disposition – Distributors</i>, certified.</p>
AB.	<p>Conflict Minerals: Supplier agrees to make good faith, reasonable inquiries to ascertain whether any products provided to LORD Corporation (the “Product(s)”) contain conflict minerals from covered countries, as those terms are defined by and consistent with the Securities and Exchange Commission’s final rule on Conflict Minerals, 17 CFR Parts 240 and 249(b), promulgated pursuant to Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Rule”). Should the supplier identify a regulated conflict mineral in any product(s), the supplier will communicate this finding to LORD Corporation and will make all reasonable attempts to find an alternate source identified to be in compliance with the rule requirements. Supplier agrees to certify and warrant that all product(s) are Democratic Republic of the Congo (“DRC”) Conflict Free, as defined by and consistent with the rule. Supplier further agrees that they will continue to make good faith inquiries to determine whether any product(s) contain conflict minerals should their source of supply change or if the product(s) include recycled or scrap sources, as defined in the rule. Supplier shall require its own subcontractors and suppliers (at any tier in the supply chain for product(s)) to flow down this requirement. Supplier shall maintain records of their inquiry process and will provide these to LORD Corporation upon request. Supplier understands that LORD Corporation may utilize and disclose conflict minerals information provided by the supplier in order to satisfy supply chain inquiries received by LORD Corporation. Should LORD Corporation determine that any certification made by the supplier is inaccurate, incomplete or purposely misrepresented, LORD Corporation may terminate any affected LORD purchase order(s) or agreement as default by supplier.</p> <p>Note: The term “conflict mineral” is defined in Section 1502(e)(4) of the Act as (A) columbite-tantalite, also known as coltan (the metal ore from which tantalum is extracted); cassiterite (the metal ore from which tin is extracted); gold; wolframite (the metal ore from which tungsten is extracted); or their derivatives; or (B) any other mineral or its derivatives determined by the Secretary of State to be financing conflict in the Democratic Republic of the Congo or an adjoining country.</p>
AC.	<p>Employee Awareness: Suppliers shall ensure that their employees manufacturing product for LORD Corporation are aware of their contribution to product or service conformity, their contribution to product safety, and the importance of ethical behavior.</p>

Special Quality Clauses

The following LORD Special Quality Clauses may be invoked by part number on the LORD purchase order. Contact the LORD Sourcing Representative or the LORD Supplier Quality Engineer for any exceptions or additional information regarding these clauses.	
001	PO Supplement Applies (Form 460): This clause is invoked on every LORD purchase order for the sole purpose of invoking the requirements of this document, <i>Purchase Order Supplement, Form 460</i> . All LORD Corporation Standard Purchase Order Terms and Conditions and Standard Quality Requirements apply. Special Quality Clauses enlisted below only apply if invoked on individual LORD purchase order.
002	Form 460- see www.lord.com/our-company/suppliers: This clause is invoked on every LORD purchase order for the sole purpose of communicating the website address to obtain the current released version of this document, <i>Purchase Order Supplement, Form 460</i> .
010	LORD Approved Processors: When a special process specification is listed in the "Process Table" section of the LORD engineering drawing and "LORD" is listed under "Source Control", only the following processors shall be used: <ul style="list-style-type: none">• A LORD approved processor listed in LORD Specification MP-APS-001, <i>Approved Process Source List</i>, (located in the LORD Secure File Transfer Site) or• A processor who is Nadcap accredited for the listed special process. The process certification from the processor shall include a statement of Nadcap accreditation including Nadcap certificate number and expiration date. Additionally, the processor shall include a copy of their Nadcap certificate and scope of accreditation document (Nadcap Form t-fm-17).<ul style="list-style-type: none">◦ Exception: If Special Quality Clause 058 or 171 is invoked on the LORD purchase order, only LORD approved processors listed in LORD Specification MP-APS-001, <i>Approved Process Source List</i>, (located in the LORD Secure File Transfer Site) may be used. <p>Note: If the particular process specification is not listed in LORD Specification MP-APS-001, the process does not require the use of a LORD or Nadcap approved processor.</p>
011	LORD Customer Approved Processors: When a special process specification is listed in the "Process Table" section of the LORD engineering drawing and a LORD customer name is indicated under "Source Control", only a processor approved by that LORD customer shall be used. Contact the LORD Sourcing Representative if a processor approved by the LORD customer (including those LORD customers not listed below) cannot be located or if access to the LORD customer's secure site cannot be obtained. <ul style="list-style-type: none">• For Bell Flight (formerly Bell Helicopter), use processors listed in Bell document QPS-101• For Boeing, use processors listed in Boeing document D1-4426 (located at www.boeing.com)• For Honeywell, use the Approved Processing Source List (APSL) on the Honeywell Aero Supplier Portal (HASP) (located at https://scc.honeywell.com).• For Sikorsky Aircraft, use processors listed in the Sikorsky Approved Supplier Listing (ASL).• For Lockheed-Martin, use processors listed in http://supplier.external.lmco.com/supplier/specproc_certs/specification_list.html• For Airbus Helicopters (formerly Eurocopter), use Nadcap accredited processors (wherever available). Otherwise, use processors listed in LORD Specification MP-APS-001, <i>Approved Process Source List</i>, (located in the LORD Secure File Transfer Site)• For Leonardo Helicopters (formerly Agusta and AgustaWestland), use Nadcap accredited processors (wherever available). Otherwise, use processors listed in LORD Specification MP-APS-001, <i>Approved Process Source List</i>, (located in the LORD Secure File Transfer Site)• For Collins Aerospace (formerly UTC Aerospace Systems or UTAS), use Report 80/85 and contact the LORD Sourcing Representative or LORD Supplier Quality Engineer• For Pratt & Whitney (US or Canada), use processors listed in the Pratt & Whitney Materials Control Laboratory Manual - APU Source Qualification List and contact the LORD Sourcing Representative or LORD Supplier Quality Engineer.
012	LORD Classified Part Approved Processor: This LORD purchase order is for a special process that is to be performed on a part that is classified as Critical, Vital, or Flight Safety. This special process generates or affects a critical characteristic "<C>". The processor shall be listed in LORD Specification MP-APS-001, <i>Approved Process Source List</i> , (located in the LORD Secure File Transfer Site) for the process to be performed and also be listed as a LORD Classified Part Approved Processor for that particular special process. LORD classified part approval is indicated in LORD Specification MP-APS-001 by the symbol {CP}.

<p>013</p>	<p>Bell Helicopter Classified Part Approved Processor: This LORD purchase order is for a special process involving a Significant "<V>" or Critical "<C>" characteristic that is to be performed on a part that is classified as Primary, Critical, or Flight Safety. The processor shall be approved by Bell Helicopter or LORD Corporation to process classified parts at the designated classified level of the part, meet the requirements of Bell Specification SQRM-001, <i>Supplier Quality Requirements Manual</i>, and have a quality management system that is in compliance to the requirements of AS9003. Accreditation to AS9100 or Nadcap AC7004 may be used to represent compliance with AS9003. The hierarchy for Bell Helicopter classified parts processing approval is as follows:</p> <ul style="list-style-type: none"> • <u>Flight Safety</u> - Approved to process Flight Safety, Critical, Primary, and non-classified parts. • <u>Critical</u> - Approved to process Critical, Primary, and non-classified parts. • <u>Primary</u> - Approved to process Primary and non-classified parts. <p><u>Bell BPS Specification Process.</u> For a special process performed to a Bell Process Specification (BPS) that requires facility approval, the processor shall be listed in Bell Helicopter Specification QPS 101 for the process to be performed and have the classified level approval of the part or higher.</p> <p><u>Non-BPS Specification Process.</u> For a special process performed to a specification other than a Bell Process Specification (BPS), such as a Military or Industry specification, the processor shall be approved per the following:</p> <ul style="list-style-type: none"> • For Bell Helicopter designed product, the processor shall be approved as a Bell Helicopter classified part processor and have the classified level approval of the part or higher. Additionally, the subcontracted special processor shall be listed in LORD specification MP-APS-001, <i>Approved Process Source List</i>, (located in the LORD Secure File Transfer Site) for the process to be performed. Classified part approval is indicated in MP-APS-001 by the symbol {CP}. • For LORD designed product, the processor shall be approved as a LORD classified part processor and be listed in LORD specification MP-APS-001, <i>Approved Process Source List</i>, (located in the LORD Secure File Transfer site) for the process to be performed. Classified part approval is indicated in MP-APS-001 by the symbol {CP}.
<p>014</p>	<p>Bell Helicopter Approved Source List (Report No. 299-099-900): Parts are to be procured from an approved manufacturer or value added distributor listed in Bell Helicopter Report No. 299-099-900, <i>Approved Source List</i>, (located in the LORD Secure File Transfer Site). Certification and identification in accordance with Report No. 299-099-900 is to accompany each shipment. Part may be procured from any distributor provided the required certification from the approved manufacturer accompanies the shipment and the exterior of each package is marked in accordance with Report No. 299-099-900. The requirement in Report No. 299-099-900 to reference the Bell Helicopter purchase order shall reference the LORD purchase order (in lieu of the original requirement).</p>
<p>015</p>	<p>Bell Helicopter Approved Metallic Material Source List (Report No. 299-100-837): The metallic material used to make the part is to be produced from an approved raw material manufacturer listed in Bell Helicopter Report No. 299-100-837, <i>Approved Metallic Material Source List</i>, (located in the LORD Secure File Transfer Site). The metallic raw material may be procured from any distributor provided the required material certification from the approved manufacturer accompanies the shipment</p>
<p>016</p>	<p>Nadcap Accredited Special Processor: When the use of an approved special processor is required per clauses 010, 011, 012, or 013, the supplier shall only use a processor who is Nadcap accredited for that process and provide the Nadcap accreditation on the process certification. Nadcap accreditation is only required for industry controlled special processes (i.e. MIL, AMS, ASTM, etc. specifications) that are listed on the LORD drawing in the Process Table. Nadcap accreditation is not required for special processes to customer specifications where the customer specifically approves the special processor or a special process to a LORD Specification (i.e. PRC-S-0002, PRC-S-0050). Refer to https://p-r-i.org/nadcap/ for further information regarding Nadcap special processes. The supplier shall notify LORD Quality within 24 hours if their accreditation/certification is lost, revoked, or suspended.</p>
<p>021</p>	<p>Approval Req'd – Rework Method: Rework planning for any reworkable non-conformances occurring on product against this LORD purchase order shall be submitted to LORD Engineering for review and approval prior to starting the rework. The rework planning is to be electronically submitted via a Supplier Request (refer to Standard Quality Clause P). Suppliers shall not make any changes to the rework planning after LORD Engineering approval has been granted without the prior written approval of LORD Engineering.</p>
<p>022</p>	<p>LORD Furnished Material: LORD Corporation or a LORD sub-tier supplier will provide the material (i.e.: articles/parts, castings, forgings, or raw stock) to satisfy the material requirements for this LORD purchase order. Upon receipt of the material and prior to use, the supplier shall inspect the material to ensure the material is free from non-conformances (i.e. shipping, handling, existing conditions, etc). All non-conformances shall be reported to LORD Corporation via a Supplier Request (refer to Standard Quality Clause P). Any documentation provided to the supplier shall be included with the return shipment to LORD Corporation.</p>
<p>029</p>	<p>Supplier Delegated Source Inspection: Parts are to be inspected by a supplier representative who has been delegated inspection authority by LORD Quality prior to shipment of parts to LORD Corporation. The source inspection is to be performed in accordance with LORD Work Instruction LWI-1007, <i>Delegated Supplier Source Inspection</i>, (located in the LORD Secure File Transfer Site).</p>

030	LORD Source Inspection: Parts are to be inspected by a LORD Source Inspector prior to shipment of parts to LORD Corporation. Contact the LORD Sourcing Representative a minimum of five days prior to the time the items will be ready for inspection.
031	LORD Witness of Test: The functional testing of the parts shall be witnessed by a LORD Representative. Contact the LORD Sourcing Representative a minimum of five days prior to the time the items will be ready for testing.
032	Customer Source Inspection: Parts are to be inspected by a LORD customer Source Inspector prior to shipment of parts to LORD Corporation. Contact the LORD Sourcing Representative a minimum of five days prior to the time the items will be ready for inspection. Evidence of the LORD customer source inspection approval shall accompany the shipment to LORD Corporation.
040	Government Source Inspection (GSI): Parts are to be inspected by a Government Source Inspector prior to shipment of parts to LORD Corporation. Upon receipt of this LORD purchase order, the supplier shall promptly furnish a copy of this purchase order to the Government Representative that normally services their facility and arrange for the source inspection. The supplier shall not begin work on the parts until the Government Inspector has communicated the inspection requirements that need to be witnessed. The supplier shall immediately contact the LORD Sourcing Representative if a Government Representative cannot be identified. Evidence of Government Source Inspection (GSI), via an acceptance stamp or signature on shipping documentation, shall accompany each shipment.
041	Government Process Review: The part on this LORD purchase order is fulfilling a government contract and may be subject to additional process review by the local Government Quality Assurance Representative (QAR). The supplier <i>may</i> be contacted by the Government QAR to review or witness a specific process; however, this is not intended to interfere with the regular/normal manufacturing process. This requirement is not intended as a manufacturing/inspection hold point and the QAR does NOT have to stamp or signoff the any paperwork as indicated in Special Quality Clause 40.
043	Non-U.S. Sources: The part on this LORD purchase order is an FAA Parts Manufacturer Approval (PMA) part (or component thereof) and shall not be manufactured outside the United States without prior approval of LORD Quality. If the part ordered is an assembly, then all components in the assembly shall not be manufactured outside the US. For FAA-PMA parts, a supplier in any jurisdiction outside the United States which would inhibit the FAA from evaluating the supplier shall not be used. This requirement does not apply to standard parts manufactured in compliance to an established U.S. Government or industry-accepted specification containing all necessary information to produce and conform the part. Examples include, but are not limited to, National Aerospace (NAS), Air Force-Navy Aeronautical Standard (AN), Society of Automotive Engineers (SAE), SAE Aerospace Standard (AS), Military Standard (MS), etc. This requirement does not apply to the raw material used to manufacture the FAA-PMA parts.
044	Drop Shipment (to supplier): The supplier shall forward the material/parts to a LORD specified sub-tier supplier upon completion of their manufacturing process. The LORD Sourcing Representative will provide the name and address of the specified supplier, a shipping label, a LORD purchase order for the specified supplier, supplier contact information, and instructions for shipment. The shipment to the LORD specified sub-tier supplier must include the LORD purchase order for the specified supplier. Upon completion of the supplier's process, a copy of the invoice, packing slip, and required certifications shall be electronically sent to the LORD Sourcing Representative.
045	<p>FAA Anti-Drug and Alcohol Misuse Prevention Program: The supplier is required to maintain an anti-drug and alcohol misuse prevention program in accordance with 14 CFR Part 120 and be listed as an approved supplier on LORD Repair Station document 145RSM-ASL, <i>Approved Supplier List</i>. Contact the LORD Sourcing Representative or LORD Quality Engineer to determine approval status. Any changes to the supplier's certification status or program/plan identification number must be immediately communicated to LORD Quality.</p> <p>All employees who perform a safety-sensitive function (i.e., maintenance) shall be tested under a FAA regulated drug and alcohol testing program. If the supplier is a certificated repair station under Federal Aviation Regulation (FAR) Part 145, the supplier's Operations Specification paragraph A449 shall state that they have implemented an FAA regulated anti-drug and alcohol misuse prevention program. If the supplier is a non-certificated maintenance source, the supplier shall have a document that registered their FAA regulated anti-drug and alcohol misuse prevention program with the Drug Abatement Division of the FAA. Each shipment of parts on which maintenance has been performed shall be accompanied by evidence that the supplier has a FAA regulated anti-drug and alcohol misuse prevention program. This evidence can be provided by one of the following:</p> <ul style="list-style-type: none"> • Listing the supplier's FAA Drug Abatement Division assigned plan identification number on the certificate of conformance for the work performed • Including a copy of the supplier's FAA Part 145 Operations Specification paragraph A449 • Including a copy of the supplier's document that registered your FAA regulated anti-drug and alcohol misuse prevention program with the Drug Abatement Division of the FAA
046	Authorized Release Certificate: A completed and signed original FAA Authorized Release Certificate FAA Form 8130-3 or EASA Authorized Release Certificate Form 1 is required with each shipment of parts. The FAA Form 8130-3 or EASA Form 1 is required with each shipment even if Special Quality Clause 069 is invoked on the LORD purchase order.

047	Repair Station Duty Time Limitations: This part is supplied to the LORD Outsource Maintenance Program which requires the supplier to have a verifiable procedure, policy, or program that relieves each person performing maintenance or preventative maintenance from duty for at least 24 consecutive hours during any seven consecutive days or the equivalent thereof in any one calendar month, Ref. 14 CFR 121.377.
050	Submit Supplier Inspection Checklist: The supplier shall submit a completed inspection checklist with each shipment to LORD Corporation. The supplier inspection checklist shall be in accordance with the requirements of Standard Quality Clause O - Inspection. If required by the LORD engineering drawing or LORD purchase order, the actual inspection results shall be reported on the supplier inspection checklist.
051	Capability Study and Gage R&R: The supplier shall submit a Capability Study and/or the Gage Repeatability and Reproducibility (R&R) to LORD Quality for review and approval prior to starting production. The Capability Study and Gage R&R shall be performed on "KEY" Characteristics (as identified on the LORD drawing) or as identified by LORD Quality (either the Quality Engineer or the Supplier Quality Engineer). The Capability Study and Gage R&R shall be submitted using the LORD Secure File Transfer Site to the LORD Quality Engineer who performed the APQP/PPAP review. The results shall be submitted with the initial (or on-going) FAI/PPAP submittal or as directed by LORD Quality. On-going results are to be provided with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order, in which case submission is only required on FAI/PPAP re-submittals.
052	100% Inspection Required: The supplier shall perform 100% inspection of all parts and of all drawing characteristics and drawing notes.
053	Conformity Inspection: The supplier shall perform a conformity inspection for the full quantity of parts on each LORD purchase order and submit the information per the following: <ul style="list-style-type: none">• 100% inspection of all parts to all drawing characteristics (including title block drawing requirements) and all drawing notes.• All results shall be recorded and submitted by serial number or parts tagged with identification number.• All material certifications and special process certifications shall be submitted.• Conformity inspection shall be submitted with each shipment regardless if Special Quality Clause 069 is invoked on the LORD purchase order.• As a guideline, use the AS9102 forms utilizing the multiple part layout for Form 3 or contact LORD Quality for further form recommendations.
054	Serialization (Bell Helicopter): The supplier shall issue and control part serialization in accordance with Bell Helicopter Specification BPS 4050, <i>Marking Aircraft Parts</i> . When assigning and applying serial numbers, the supplier shall use their Bell Helicopter assigned alpha code (prefix) designation.
055	Inspection Data (Provided): The supplier shall submit the following information with each shipment regardless if Special Quality Clause 069 is invoked on the LORD purchase order. Inspection results shall be tabulated and are preferred to be submitted electronically (i.e. Excel, Word table, etc). The following items shall be 100% inspected and the actual measured values (for variable dimensions/features) recorded (by serial number where applicable): <ul style="list-style-type: none">• All Critical Characteristics (dimensions and features that are specifically identified as "<C>" on the LORD engineering drawing)• All Key Characteristics (dimensions and features that are specifically identified as "KEY" on the LORD engineering drawing)• Dimensions and features that are specifically identified on the LORD engineering drawing as requiring 100% inspection
056	Inspection Data (Retained): The supplier shall retain the following information per the record retention requirements specified for the part number. The following items shall be 100% inspected and the actual measured values (for variable dimensions/features) recorded (by serial number where applicable): <ul style="list-style-type: none">• All Critical Characteristics (dimensions and features that are specifically identified as "<C>" on the LORD engineering drawing)• All Key Characteristics (dimensions and features that are specifically identified as "KEY" on the LORD engineering drawing)• Dimensions and features that are specifically identified on the LORD engineering drawing as requiring 100% inspection
057	Assembly Contains Classified Part(s): This LORD purchase order is for a Bell Helicopter controlled item assembly that contains a part (or parts) classified as Primary, Critical, or Flight Safety.

<p>058</p>	<p>Manufacture/Subcontracting of Classified Parts (Bell Helicopter): This LORD purchase order is for a Bell Helicopter controlled item that is classified as Primary, Critical, or Flight Safety and shall meet the requirements of Bell Specification SQRM-001, <i>Supplier Quality Requirements Manual</i>. In order to manufacture this part or perform a manufacturing operation involving a Significant "<V>" or Critical "<C>" characteristic, the supplier shall be approved by Bell Helicopter or LORD Corporation to manufacture classified parts at the designated classified level of this part. The hierarchy for Bell Helicopter classified parts manufacturing/processing approval is as follows:</p> <ul style="list-style-type: none"> • <u>Flight Safety</u> - Approved to manufacture/process Flight Safety, Critical, Primary, and non-classified parts. • <u>Critical</u> - Approved to manufacture/process Critical, Primary, and non-classified parts. • <u>Primary</u> - Approved to manufacture/process Primary and non-classified parts. <p><u>Subcontracted Processes:</u></p> <ul style="list-style-type: none"> • For controlled items, any processor providing a service or process to a Bell Helicopter BPS specification is identified within the Bell Helicopter Approved Processor Listing, QPS 101, and the processor is a Bell Helicopter approved controlled item source. Additionally, the subcontracted special processor shall be listed in LORD Specification MP-APS-001, <i>Approved Process Source List</i>, (located in the LORD Secure File Transfer Site) for the process to be performed. Classified part approval is indicated in LORD Specification MP-APS-001 by the symbol {CP}. • For Bell Helicopter designed product, any processor providing a service/process to a specification other than a BPS, such as MIL-SPECS or industry processing specifications, involving a "Significant" or "Critical" characteristic shall require the processor to be a Bell Helicopter approved controlled item source. Additionally, the subcontracted special processor shall be listed in LORD Specification MP-APS-001, <i>Approved Process Source List</i>, (located in the LORD Secure File Transfer Site) for the process to be performed. Classified part approval is indicated in LORD Specification MP-APS-001 by the symbol {CP}. • For LORD Corporation designed product, any processor providing a service/process to a specification other than a BPS, such as MIL-SPECS or industry processing specifications, involving a "Significant" or "Critical" characteristic shall require the processor to be a LORD classified item source and be listed in LORD Specification MP-APS-001, <i>Approved Process Source List</i>, (located in the LORD Secure File Transfer Site) for the process to be performed (refer to the "Exception" statement in Special Quality Clause 010). Classified part approval is indicated in LORD Specification MP-APS-001 by the symbol {CP}. • The processor shall have a quality management system shall be in compliance to the requirements of AS9003. Accreditation to AS9100 or Nadcap AC7004 may be used to represent compliance with AS9003. • Contact the LORD Sourcing Representative if a special process processor approved by LORD or Bell Helicopter cannot be located. • The requirements of the Special Quality Clause superseded those of Special Quality Clause 010 if invoked on the LORD purchase order. <p><u>Inspection Checklist:</u> The supplier shall prepare and use an Inspection Checklist in accordance with the requirements of Standard Quality Clause O (Inspection) to document the inspections performed on the part. Actual recording of dimensions (by serial number) is not required unless specifically required by the LORD Corporation or Bell Helicopter engineering drawing. Significant "<V>" or Critical "<C>" characteristics require 100% inspection and shall be annotated by the applicable symbol. The Inspection Checklist shall have the part classification listed on each page. All measurement and test equipment used to inspect classified parts shall be discriminate to within ten percent (10%) of the total tolerance spread for the feature being inspected. For total tolerance spreads of less than .001 inch, measurement equipment is discriminate to twenty percent (20%) of the spread. Equipment less discriminate shall only be used with the specific approval of LORD Quality.</p>
<p>059</p>	<p>Bell Helicopter Marking Required: Parts and assemblies shall be identified and serialized as required by the Bell Helicopter engineering drawing. Per Bell Helicopter specifications SQRM-001, <i>Supplier Quality Requirements Manual</i>, and BPS 4050, <i>Marking Aircraft Parts</i>, parts are to be identified with the Bell Helicopter part number, calendar date of manufacture (MM/DD/YYYY) or other identification per BPS 4050 and final inspection acceptance stamp. The date of manufacture is to be the date of final acceptance and is optional for serialized parts. Identification not specified on the Bell Helicopter drawing may be marked using the rubber stamp (with marking ink) marking method.</p>
<p>061</p>	<p>Bell Helicopter Standard Hardware: Parts are to be manufactured to the latest revision of the applicable Bell Helicopter Standard (as posted on the Bell Helicopter Secure Website), however parts may be provided to a previous revision unless otherwise indicated on the Bell Helicopter Standard. For suppliers that do not have access to the Bell Helicopter Standard, contact the LORD Sourcing Representative to obtain the latest revision to the Bell Helicopter Standard. The supplier Certificate of Conformance shall indicate the actual manufacturer of the parts and the revision level of parts shipped. LORD Standard Quality Clauses C, D, E, H, K, and O do not apply to this LORD purchase order.</p>

062	<p>For Bell Helicopter End Use: This LORD purchase order is for product or services intended for Bell Helicopter end use. Compliance with Bell Helicopter Specification SQRM-001, <i>Supplier Quality Requirements Manual</i>, is required with the following clarifications:</p> <ol style="list-style-type: none">For all industry specifications, the supplier/processor shall comply with the latest released revision of the applicable specification requirements. Suppliers/processors are permitted to process and certify to the released revision of the specification or the revision(s) listed in the LORD Specification Index located in the LORD Secure File Transfer Site (refer to Standard Clause D). If the specification is cancelled/obsoleted/superseded by another industry specification, refer to Bell Specification 170-001, <i>Supersession/Alternate Parts List</i>, 170-002, <i>Supersession of Processes</i>, or 170-003, <i>Materials Supersession List</i> (located in the LORD Secure File Transfer Site) for authorization on the replacement specification.Suppliers utilizing test reports to verify conformance of purchased metallic raw material to applicable specification requirements shall periodically validate the reports through independent testing of material received. Refer to Bell Helicopter Specification SQRM-001 for additional details.Bell Helicopter documents QPS-100, QPS-101 (quality requirements only), QPS-102, QPS-104, QPS-106, QPS-108, QPS-109, QPS-200, and QPS-300 have been replaced by Bell Helicopter document SQRM-001. In cases where the LORD drawings and documents make reference to these Bell Helicopter documents, Bell Helicopter document SQRM-001 shall apply.Unless otherwise specified on the engineering drawing, the thread application category for all screw threads per AS8879, MIL-S-8879, or MIL-S-7742 shall be "Other Threads" for determining the level of inspection requirements (reference Bell Specification 299-947-739).
063	<p>Airbus – General Requirements for Equipment and System Suppliers (GRESS) Req'm'ts: This LORD purchase order is for Airbus product or services with the Airbus <i>General Requirements for Equipment and System Suppliers</i> (GRESS) requirements invoked. The supplier shall request LORD Engineering approval via a Supplier Request (refer to Standard Clause P) at least six weeks prior to any major industrial change, such as plant location and layout, transportation method, major Enterprise Resources Planning (ERP) change, top level organization and personnel at key position changes, major process (including main tool) changes, or major supplier (including subcontractors) change. The supplier shall meet the delivery schedule per the LORD purchase order requirements. In the event of delays in delivery, the supplier shall inform LORD Corporation and perform the following; present a recovery plan (i.e. line of balance) if requested; perform root cause analysis (i.e. 8D), and establish an action plan. The requirements of this clause shall be flowed down by the supplier to any sub-tier used in the production of Airbus parts listed on this Purchase Order.</p> <p>To maintain process control, some characteristics on the drawing may be labeled as key characteristics ("Key") and some characteristics maybe labeled as critical items ("$<C>$"). These terms and their associated process controls are defined by, and shall be processed according to, SAE AS9103, <i>Variation Management of Key Characteristics</i>.</p> <p><u>Critical Items:</u> Those items (e.g. functions, parts, software, characteristics, having significant effect on the product realization and use of the product; including safety, performance, form, fit, function, producibility, service life, etc. Critical Items require specific actions per AS9103 to ensure they are adequately managed and shall have 100% inspection of all critical features.</p> <p><u>Key Characteristic:</u> An attribute or feature whose variation has a significant influence on product fit, performance, service life, or producibility; that requires specific action for the purpose of controlling variation.</p> <ul style="list-style-type: none">Variability of the measurement system as well as the process is required to be evaluated and controlled. Process variability is required to be controlled on each production lot and evidence of process capability for key characteristics must be submitted with each shipment.Process and measurement system capability assessments and validation shall be completed and submitted to the LORD Supplier Quality Engineer for review and approval prior to the parts transition to production. Demonstrated capability does not remove the requirement for 100% inspection of the features identified as "Key" on the drawing.
069	<p>Certifications - Maintain at Supplier: When certification clauses are invoked on the LORD purchase order, certifications are to be submitted with the First Article Inspection (FAI) report only. After FAI approval and unless otherwise specified, the supplier shall maintain all applicable certifications for subsequent shipments at their facility for the specified record retention period. Certifications shall be maintained to allow retrieval and submittal to LORD Corporation within the requested time frame.</p>

070	Certification Req'd - NDT: The Non-Destructive Testing (NDT) certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document. <ul style="list-style-type: none">• If radiography is required, the radiographs shall be furnished with each shipment unless supplier personnel are certified by LORD Corporation as Radiographic Interpreters.• For Fluorescent Penetrant Inspection (FPI), the use of a higher sensitivity level than that required by the LORD drawing is acceptable except that sensitivity level 4 shall not be used if Special Quality Clause 402 is invoked on the LORD purchase order.• Where 200% magnetic particle inspection or penetrant inspection is required by the LORD engineering drawing, two different inspectors are to perform the process and evaluation. The two-person inspection shall be clearly indicated on the submitted certification. Unless otherwise specified by the LORD engineering drawing, for 200% NDT inspection - an acceptance symbol for each 100% inspection shall be marked on the part by the marking method and in the location specified by the LORD engineering drawing.• For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification.
071	Approval Req'd – NDT Technique: The supplier shall submit a part-specific Non-Destructive Testing (NDT) technique sheet to LORD Corporation for approval, prior to processing/testing. The NDT technique sheet shall be electronically submitted via a Supplier Request (refer to Standard Clause P). The supplier shall not make any changes to the NDT technique after LORD Corporation approval has been granted without the prior written approval of LORD Quality. Evidence of personnel qualification shall be available upon request when such qualification is a requirement.
080	Visual Inspection: Visual inspection of parts shall be performed in accordance with LORD Technical Specification PRC-T-0010, <i>Requirements for Visual Inspection of Aerospace Products</i> , (located in the LORD Secure File Transfer Site). If Special Quality Clause 402 is also invoked on this LORD purchase order, follow the inspection requirements specific to Sikorsky Aircraft in the PRC-T-0010 document.
090	Certification Req'd – Certificate of Conformance (C of C): The Certificate of Conformance (C of C) shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Submit the Certificate of Conformance (C of C) per the following: <ul style="list-style-type: none">a) For Metallic and Plastic Materials: A Certificate of Conformance (C of C) is required for the part number specified on the LORD purchase order. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i>, (available on the LORD Supplier web page, under "Key Documents") as the C of C.b) For Chemicals and Materials Other Than Metallic and Plastic: A Certificate of Conformance (C of C) is required to the LORD purchase order. LORD Form LWI-0774f1 <i>System and Process Certification Checklist</i>, (available on the LORD Supplier web page, under "Key Documents") may be used to provide the information listed below; however, other formats are acceptable for submittal. Compliance with Special Quality Clause 140, Section b in lieu of this requirement is acceptable. Any combination of C of C or shipping document shall include the following:<ul style="list-style-type: none">• LORD Purchase Order (PO) number• Name/address of facility that manufactured the material or performed the process or test• Quantity shipped• Date shipped• Name and/or title of authorized representative from the company that manufactured the material or performed the process or test. Electronic signatures are acceptable• Unique traceability number (batch number)• Statement certifying that articles covered by the certification are in compliance• Any special storage conditions other than room temperature• Shelf life requirements in one of the following forms:<ul style="list-style-type: none">○ Expiration date○ Recommended use by date○ The manufacturing/production date with manufacturer's recommended shelf life.
100	Certification Req'd – Plating: The plating certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.

101	Certification Req'd – Heat Treat: The heat treat certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. The certificate shall include all required mechanical properties. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.
102	Certification Req'd – Hardness Testing: The hardness test certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. The certification shall include the hardness test specification, high and low hardness values, and sample size. If the part hardness is designated as a Significant "<V>" or Critical "<C>" characteristic by the LORD engineering drawing, documentation of the actual hardness reading for each part is required on the certification. If no hardness test specification is listed on the LORD engineering drawing, the hardness testing is to be performed per ASTM E10, ASTM E18 or ASTM E92 as applicable. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document. <u>Selection of Hardness Scales:</u> Unless otherwise specified on the engineering drawing, equivalent hardness scales may be used when checking hardness. <ul style="list-style-type: none">• Alternate hardness scales which produce larger indentations than that specified by the engineering drawing may only be used on non-finished (e.g. rough machined) surfaces unless explicitly authorized by LORD Quality.• An equivalent scale is defined as a scale having a verified and published correlation with the reference scale (e.g. ASTM E140 conversions), and is considered appropriate for use on that particular material and condition. If in question, LORD Quality shall be contacted regarding the suitability of an equivalent hardness scale.• When using conversions, the measured value shall be converted to the scale defined on the engineering drawing and then compared for acceptance. The use of hardness scales other than that noted on the engineering drawing and the applicable conversion method or document used shall be documented.• It is not permissible to convert hardness measurements made with a portable tester.
103	Certification Req'd – Electrical Conductivity Testing: The electrical conductivity certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. The certification shall include the electrical conductivity specification, the electrical conductivity values (by serial number if applicable), and sample size. If the part electrical conductivity is designated as a Significant "<V>" or Critical "<C>" characteristic by the LORD engineering drawing, documentation of the actual electrical conductivity reading for each part is required on the certification. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.
105	Certification Req'd – Chemical Process: The chemical process certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.
106	Certification Req'd – Anodize: The anodize certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.
107	Certification Req'd – Shot Peen: The shot peen certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. The shot peen almen strips are required to be maintained at the shot peen supplier's facility and do not need sent to LORD Corporation with the certification and/or parts. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.

108	<p>Certification Req'd – Painting/Coating: The paint/coating certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. Certificate shall include the manufacturer, material product code and description, and the manufacturer lot/batch number. If there are multiple parts to the material (i.e. Part A, Part B, etc), then the manufacturer lot/batch number for each part is required. The manufacturer lot/batch number must be traceable to the supplier's purchase order for the material. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i>, (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.</p>
109	<p>Certification Req'd – Welding: The welding certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i>, (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.</p>
111	<p>Certification Req'd – Other: A process certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. The requested certification/process should be identified on the LORD purchase order. If the specific certification/process is not identified on the LORD purchase order or it cannot be determined which additional certification is required, contact the LORD Supplier Quality Engineer. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i>, (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.</p>
112	<p>Certification Req'd - Underwriters Laboratory (UL): The Underwriter's Laboratory (UL) certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i>, (available on the LORD Supplier web page, under "Key Documents"), or an equivalent certification document.</p>
113	<p>Certification Req'd - Material Grain Direction: The material grain direction certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. The certification shall be in accordance with LORD Specification PRD-S-0436, <i>Control of Material Grain Direction</i> (located in the LORD Secure File Transfer Site). For classified parts (i.e. Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.</p>
120	<p>Certified Test Report – Chem/Mech Prop: The certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. Include actual results of all chemical analyses, mechanical property tests, and mechanical testing, as required by the applicable specification for each heat or lot of material.</p> <ul style="list-style-type: none"> • Limit certifications for chemical properties are acceptable for aluminum only. • Certification(s) shall state the starting size of the material when the raw material size is specified on the LORD engineering drawing. • Test reports from the original producer of the material shall be submitted, unless re-melting or re-rolling occurred, in which case test reports from the producer of the re-melted or re-rolled material shall be submitted. If the material receives subsequent processing (i.e. heat treat, etc.), test reports for the material in its final condition shall also be submitted. A chain of custody (traceability) of material, including original certification from the last re-melt or re-roll supplier, to each time the material was sold, up to delivery to LORD Corporation shall be maintained and copies of the certifications shall be provided with the shipment to LORD Corporation. • For raw material (i.e. forgings and castings) supplied by LORD Corporation, the supplier need only provide a copy of the LORD shipping document for the material provided, including reference to any heat code or serial numbers. Copies of the LORD certifications and receiver are <i>not</i> required to be supplied with the shipment. • If more than one lot of raw material is packaged together, raw material suppliers are required to physically segregate and identify raw material lots and to specify quantities of each lot of raw material on the certified test reports.

122	Yield Strength: The certification for the material yield strength shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. A stress-strain (load/elongation) recorder and curve is required for materials where the yield strength is specified as being determined by the "Offset" method. The yield strength shall be determined as defined by material specification and in ASTM-E8, ASTM-A370, ASTM-B557 or ASTM-F606 as applicable. The supplier shall include a statement on the certification indicating that yield strength was determined using a stress-strain curve. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") or an equivalent certification document.
140	Certified Test Report - NonMetallic Mat'l: The certification shall be submitted with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. For classified parts (i.e., Flight Safety, Critical, Primary, Vital, or Critical Safety Item), the applicable part classification shall be indicated on each page of the certification. Submit the certification per the following: a) Metallic and Plastic Materials: A Certificate of Conformance (C of C) is required for the part number specified on the LORD purchase order and a certified test report stating the actual testing results required by the material specification on the LORD engineering drawing or in the specification. Use LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") as the C of C. b) Chemicals and Materials Other Than Metallic and Plastic: Requires submission of certified test report stating the actual results of all testing required by the material specification as stated on the LORD purchase order. LORD Form LWI-0774f1, <i>System and Process Certification Checklist</i> , (available on the LORD Supplier web page, under "Key Documents") may be used to provide the information listed below; however, other formats are acceptable for submittal. Any combination of C of C or shipping document shall include the following: <ul style="list-style-type: none">• LORD Purchase Order (PO) number• Name/address of facility that manufactured the material or performed the process or test• Actual test results and specification limits• Quantity shipped• Date shipped• Name and/or title of authorized representative from the company that manufactured the material or performed the process or test. Electronic signatures are acceptable• Unique traceability number (batch number)• Statement certifying that articles covered by the certification are in compliance• Any special storage conditions other than room temperature• Shelf life requirements in one of the following forms:<ul style="list-style-type: none">○ Expiration date○ Recommended use by date○ The manufacturing/production date with manufacturer's recommended shelf life

171	<p>Supplier Planning Approval Req'd: Frozen planning shall be prepared in accordance with LORD Work Instruction WI-05-02-02, <i>Preparation and Maintenance of Frozen Planning</i>, (located in the LORD Secure File Transfer Site) and the requirements of the applicable LORD engineering drawing. All frozen planning shall be completed using the applicable LORD 050202-XX Checklist (located in the LORD Secure File Transfer Site) and the completed checklist submitted as part of the frozen planning package. All frozen planning shall be submitted in English.</p> <p>Frozen planning shall be submitted and approved prior to the start of manufacturing or per the schedule agreed upon between LORD Corporation and the supplier for both original and revised planning. All planning submittals require submission via a Supplier Request (refer to Standard Clause P) and the actual planning package uploaded to the LORD Secure File Transfer Site unless directed otherwise. The Supplier Request shall have frozen planning chosen as the reason for request and the Supplier Request Item Description block completed with a statement as to the reason the frozen planning is being submitted for approval. If the submission is for a proposed revision to an existing approved frozen plan, the reason shall include a requested effectivity date and justification for the revision. LORD engineering will review the proposed revision and provide a response indicating if the change is denied or if LORD Corporation will allow the revised frozen planning package to be submitted. No changes to the frozen planning or manufacturing process shall be implemented without LORD engineering approval to proceed.</p> <p>All special processors used in the manufacture of a designated part (i.e. Vital, Critical, Flight Safety, etc.) shall be listed in LORD Specification MP-APS-001, <i>Approved Process Source List</i>, (located in the LORD Secure File Transfer Site) for the process to be performed (refer to the "Exception" statement in Special Quality Clause 010). The requirements of LORD Work Instruction WI-05-02-02 and the applicable appendices shall be followed to determine if the special processor needs to be a LORD classified item source (note: classified item source is indicated in LORD Specification MP-APS-001 by the symbol {CP}).</p> <p>Any subsequent product shipments will require the frozen planning revision to be stated on the LORD checklist (Form LWI-0774f1). The LORD part number, frozen planning number (if different than part number), and planning revision (letter/number or date in a Month/Day/Year format) shall be identified (Example: Part Number: Y-35027-1-1, Company: ABC, Planning Number: FP 83, Planning Revision B, 03/31/2018).</p>
191	<p>Approval Req'd – Control Plan: The supplier shall submit a Control Plan to LORD Quality for review and approval prior to starting production. The Control Plan shall identify in chronological order, each step in the manufacturing process, including the items checked, and the method, frequency, acceptance standard, responsibility and documentation for each check. The Control Plan should also include a process flow chart keyed to the Control Plan. The Control Plan shall be submitted using the LORD Secure File Transfer Site to the LORD Quality Engineer who performed the APQP/PPAP review. The supplier shall not make any changes to the Control Plan after LORD Quality approval without the prior written approval of LORD Quality.</p>
192	<p>Approval Req'd – PFMEA: The supplier shall submit a Process Failure Mode and Effect Analysis (PFMEA) to LORD Quality for review and approval prior to starting production. The PFMEA shall identify potential failure modes and address their associated causes and take into account all manufacturing operations, including individual components and assemblies. The PFMEA should also include a process flow chart keyed to the PFMEA. The PFMEA shall be submitted using the LORD Secure File Transfer Site to the LORD Quality Engineer who performed the APQP/PPAP review. The supplier shall not make any changes to the PFMEA after LORD Quality approval without the prior written approval of LORD Quality.</p>
193	<p>Submit PPAP: The supplier shall submit a Production Part Approval Process (PPAP) in accordance with the AIAG PPAP Manual, or as otherwise specified by LORD Corporation, prior to shipment of production parts. Contact the LORD Sourcing Representative or LORD Quality for PPAP submittal requirements and/or required PPAP submission level. The PPAP shall be submitted using the LORD Secure File Transfer Site to the LORD Quality Engineer who performed the PPAP review.</p>
194	<p>Quality System Registration Req'd: The supplier shall maintain third party registration of their quality system to ISO 9001 certification with the eventual goal of IATF16949 certification by an accredited registrar, or meet the LORD specified eligibility requirements for Specially Designated Small Suppliers.</p>
195	<p>First Article per AS/EN/SJAC 9102 Req'd: The supplier shall submit a First Article Inspection (FAI) report in accordance with the requirements of AS/EN/SJAC 9102 and LORD Standard Quality Clause H (First Article Inspection Report Approval). FAI reports (new or updated) shall be submitted prior to or with the shipment of parts. All forms of the AS/EN/SJAC 9102 specification are required to be submitted, however the LORD AS9102 Form 3 shall be used in lieu of the standard AS/EN/SJAC 9102 Form 3.</p>
230	<p>Approval Req'd – Test Plan: The supplier shall submit a functional test and acceptance plan to LORD Engineering for review and approval prior to the start of testing. The test plan is to be electronically submitted via a Supplier Request (refer to Standard Clause P). The supplier shall not make any changes to the test plan after LORD engineering approval has been granted without the prior written approval of LORD Quality. Evidence of personnel qualification shall be available upon request when such qualification is a requirement (e.g., NDT).</p>

241	Approval Req'd – Weld Procedure: The supplier shall submit a weld procedure to LORD engineering for review and approval prior to start of any welding. The weld procedure is to be electronically submitted via a Supplier Request (refer to Standard Clause P). The supplier shall not make any changes to the procedure after LORD approval has been granted without the prior written approval of LORD Quality. Welding shall be performed by certified welders. Evidence of personnel qualification shall be available upon request.
250	Certified Test Report – Performance Test: The supplier shall submit a performance test certification with each shipment unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. The certification shall include results for all testing required by the drawing or specification. Report actual values of quantitative test results by serial number (where applicable). Test reports shall be traceable to the articles submitted.
252	Certified Test Report – Performance Test: The supplier shall submit a performance test certification with each shipment regardless if Special Quality Clause 069 is invoked on the LORD purchase order. The certification shall include results for all testing required by the drawing or specification. Report actual values of quantitative test results by serial number (where applicable). Test reports shall be traceable to the articles submitted.
260	Age Control – Cure Date: The supplier shall maintain cure date control for elastomeric products in accordance with the following (unless otherwise specified by the LORD engineering drawing): <ul style="list-style-type: none"> • All articles shall be marked with the cure date in the format of "MM/YYYY". • Marking shall be ink stamp, legible, and located on a surface not detrimental to the operation of the part. If necessary, contact the LORD Supplier Quality Engineer for further clarification for the appropriate marking surface. • Parts too small to be marked with 1/16" characters may be bagged and a tag or a label (marked with the cure date) inserted into the bag. • Assemblies which contain elastomeric parts shall have the cure date of the oldest part marked on the assembly. • No articles shipped to LORD shall have a cure date over one year old at the time of receipt.
261	Age Control – Cure Date: The supplier shall maintain cure date control for elastomeric products in accordance with the following (unless otherwise specified by the LORD engineering drawing): <ul style="list-style-type: none"> • All articles shall be marked with the cure date in the format of "MM/YYYY". • Marking shall be ink stamp, legible, and located on a surface not detrimental to the operation of the part. If necessary, contact the LORD Supplier Quality Engineer for further clarification for the appropriate marking surface. • Parts too small to be marked with 1/16" characters may be bagged and a tag or a label (marked with the cure date) inserted into the bag. • Assemblies which contain elastomeric parts shall have the cure date of the oldest part marked on the assembly. • Product shall have at least 5/6 of the shelf life remaining at time of receipt.
262	Age Control: The supplier shall assure that any items provided have at least 2/3 of the shelf life remaining at time of shipment.
350	Record Retention - 20 Years: All production and quality-related records shall be retained by the supplier for a period of 20 years from the date of shipment. Supplier shall contact the LORD Quality Department to obtain instructions prior to the destruction or disposal of production and quality-related records.
351	Record Retention - 30 Years: All production and quality-related records shall be retained by the supplier for a period of 30 years from the date of shipment. Supplier shall contact the LORD Quality Department to obtain instructions prior to the destruction or disposal of production and quality-related records.
352	Record Retention - 25 Years: All production and quality-related records shall be retained by the supplier for a period of 25 years from the date of shipment. Supplier shall contact the LORD Quality Department to obtain instructions prior to the destruction or disposal of production and quality-related records.
354	Record Retention - 40 Years: All production and quality-related records shall be retained by the supplier for a period of 40 years from the date of shipment. Supplier shall contact the LORD Quality Department to obtain instructions prior to the destruction or disposal of production and quality-related records.
355	Record Retention - 50 Years: All production and quality-related records shall be retained by the supplier for a period of 50 years from the date of shipment. Supplier shall contact the LORD Quality Department to obtain instructions prior to the destruction or disposal of production and quality-related records.
356	Record Retention - Life of the Program: All production and quality-related records shall be retained by the supplier for the life of the program from the date of shipment.
400	Boeing PSD/SSD: Boeing PSD or SSD documents may be applicable to the parts on the LORD purchase order. The PSD:Part Number cross reference list for the applicable Boeing specification and part number shall be reviewed to determine if PSD or SSD documents apply. If the PSD or SSD applies to a process which requires a process certification, the PSD or SSD shall also be referenced on the certification. The PSD:Part Number cross reference list is located in the LORD Secure File Transfer Site.

401	<p>For Pratt & Whitney Canada End Use: This LORD purchase order is for product or services intended for Pratt & Whitney Canada (P&WC) (a United Technologies Company (UTC)) end use. Compliance with P&WC Specification SQOP: 01-01 and UTC Specification ASQR-01, Section 3.5 (for the applicable "Supplier Type") is required with the following ASQR-01 exception/clarification:</p> <ul style="list-style-type: none">a) Inspection requirements (sampling) are per UTC Specification ASQR-20.1, as a minimum, and do not override any drawing requirements (i.e. a drawing note that requires 100% inspection).b) ASQR-01, Paragraph 4.1.3 and Table A1: The requirements of this paragraph are applicable to "Type 1: BTP (Build to Print) UTC Member Design Parts" and to Flight Safety parts. With the exception of Flight Safety Parts, all other LORD product is classified as "Type 2: Design Responsible Supplier" per Table A1 and exempt from the requirements of paragraph 4.1.3. <p>Per P&WC Specification SQOP: 01-01, the supplier, regardless of the design responsibility, shall establish, implement, document and maintain a phase-gate process for the control of work transfers (e.g. address change, manufacturing location change, or sub-tier change). The process for the control of work transfers shall establish timely gates and accountability within the work transfer activity to assess and mitigate risks to achieve goals. The supplier shall submit UTC ASQR-01 Form 4 for review and approval prior to any change implementation and shall not interrupt flow of product or special process from any existing source until such approval is available.</p>
402	<p>For Sikorsky Aircraft End Use: This LORD purchase order is for product or services intended for Sikorsky Aircraft (a Lockheed Martin Company) end use. Compliance with Sikorsky Aircraft Specification SSQR-01 is required with the following exceptions:</p> <ul style="list-style-type: none">a) Paragraph 1.2.1 shall apply to LORD Corporation only.b) Sikorsky Specification SSQR-20.1 inspection requirements (sampling) are only applicable when specified on the LORD drawing and do not override any specific or unique LORD drawing requirements (i.e. a drawing note that requires 100% inspection).c) If Sikorsky Specification SS7777 appears in the LORD drawing (Sheet One) Process Table, the requirements shall apply to all material specifications and process specifications listed under the "Process Spec" column of the Process Table. In the cases where a LORD specification (i.e. "PRC", "PRD", or any other LORD internal document) is listed under the "Process Spec" column of the process table, then the SS7777 requirements are not invoked for that specific process.d) Sikorsky Specification SS9208, Section 3 is applicable for all visual acceptance criteria. If the corresponding Sikorsky part number is not identified on the LORD drawing, contact LORD Engineering to determine which sub-paragraph of Section 3 is applicable. <p><u>For Flight Safety Parts:</u> Compliance with Sikorsky Specifications SSQR-01 and SS9211 is a contractual requirement of this LORD purchase order. Certification to Sikorsky Specification SS9211, including the current revision of the specification, shall be provided.</p>
403	<p>For Collins Aerospace End Use: This LORD purchase order is for product or services intended for Collins Aerospace (formerly UTC Aerospace Systems or UTAS) (a United Technologies Company (UTC)) end use. Compliance with UTC Specification ASQR-01, Section 3.5 (for the applicable "Supplier Type") is required with the following ASQR-01 exception/clarification:</p> <ul style="list-style-type: none">a) Inspection requirements (sampling) are per UTC Specification ASQR-20.1, as a minimum, and do not override any drawing requirements (i.e. a drawing note that requires 100% inspection).b) ASQR-01, Paragraph 4.1.3 and Table A1: The requirements of this paragraph are applicable to "Type 1: BTP (Build to Print) UTC Member Design Parts" and to Flight Safety parts. With the exception of Flight Safety Parts, all other LORD product is classified as "Type 2: Design Responsible Supplier" per Table A1 and exempt from the requirements of paragraph 4.1.3. <p><u>For Flight Safety Parts:</u> Compliance with UTC Specification ASQR-09.1 and Collins Aerospace Specification HS15000 is a contractual requirement of this purchase order. All documents, including the packing list, Certificate of Conformity (C of C), etc., from the supplier shall contain the following text: "FLIGHT SAFETY PART. HANDLE AND PACKAGE WITH CARE."</p>
404	<p>Mfr/Subco Flight Safety – Boeing Mesa: This LORD purchase order is for a Flight Safety Part intended for Boeing Helicopter (Mesa, AZ) end use. Compliance to Boeing Helicopter Flight Safety Parts Program Specification EPB17-119 is a contractual requirement of this LORD purchase order. The complete manufacture of this part or a manufacturing operation involving a critical characteristic shall only be performed by (or subcontracted to) a Boeing Helicopter Mesa, AZ approved supplier.</p>

406	Counterfeit Work for Lockheed Martin: <ul style="list-style-type: none">a) The supplier shall establish and maintain a Counterfeit Parts / Material Prevention and Control Plan using SAE AS5553, <i>Counterfeit Electronic Parts; Avoidance, Detection, Mitigation and Disposition</i>, (reference elements of Section 4) and/or SAE AS6174, <i>Counterfeit Material; Assuring Acquisition of Authentic and Conforming Material</i>, (reference elements of Section 3) to ensure that Counterfeit Work is not delivered to LORD Corporation.b) For purposes of this clause, work consists of those commodities delivered under this contract that are the lowest level of separately identifiable items (e.g., articles, components, standard hardware, goods, raw materials, and assemblies). "Counterfeit Work" means work that is, or contains, items misrepresented as having been designed and/or produced under an approved system or other acceptable method. The term also includes approved work that has reached a design life limit or has been damaged beyond possible repair, but is altered and misrepresented as acceptable.c) The supplier shall only purchase products to be delivered or incorporated as work to LORD Corporation directly from the Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM), OCM/OEM authorized distributor chain, Aftermarket Manufacturer, or Authorized Reseller. These products shall have verification that work is traceable to OCM/OEM, OCM/OEM authorized distributor chain, Aftermarket Manufacturer, or Authorized Reseller that identifies the name and location of all the supply chain intermediaries from the part manufacturer to the direct source of the product for the supplier. Work can only be acquired from independent distributors or brokers in cases of diminishing material supply (DMS) or obsolescence and shall be subjected to a screening process appropriate to the commodity in accordance with the Counterfeit Parts / Material Prevention and Control Plan. If traceability is not attainable, written notice shall be provided to LORD Corporation prior to the delivery with records of evidentiary tests and inspections performed and conformance of the product to specified acceptance criteria that ensures verification activities taken to assure authenticity. Written notice is not required for raw material and standard hardware purchased from independent distributors or brokers, but products shall be able to provide commodity level traceability to the Original Manufacturer.d) The supplier shall immediately notify LORD Corporation with the pertinent facts if the supplier becomes aware or suspects that it has furnished Counterfeit Work. When requested by LORD Corporation, the supplier shall provide the supply chain traceability to an Original Manufacturer or authorized distributor chain that identifies the name and location of all the supply chain intermediaries from the part manufacturer to the direct source of the product for the supplier.e) The supplier shall include paragraphs (a) through (d) of this clause or equivalent provisions in lower tier subcontracts for the delivery of items that will be included in or furnished as work to LORD Corporation.f) The supplier agrees and shall ensure that Counterfeit Work is not delivered to LORD Corporation.
408	Boeing Supplied Tooling: This LORD purchase order is for product that uses Boeing supplied tooling. Compliance with Boeing Specification D950-11059-1 applies and is a contractual requirement of this LORD purchase order.
409	For Pratt and Whitney US End Use: This LORD purchase order is for product or services intended for Pratt & Whitney US (a United Technologies Company (UTC)) end use. Compliance with UTC Specification ASQR-01, Section 3.5 (for the applicable "Supplier Type") is required with the following ASQR-01 exception/clarification: <ul style="list-style-type: none">a) Inspection requirements (sampling) are per UTC Specification ASQR-20.1, as a minimum, and do not override any drawing requirements (i.e. a drawing note that requires 100% inspection).b) ASQR-01, Paragraph 4.1.3 and Table A1: The requirements of this paragraph are applicable to "Type 1: BTP (Build to Print) UTC Member Design Parts" and to Flight Safety parts. With the exception of Flight Safety Parts, all other LORD product is classified as "Type 2: Design Responsible Supplier" per Table A1 and exempt from the requirements of paragraph 4.1.3.

410	<p>Restriction on Acquisition of Certain Articles Containing Specialty Metals - DFAR 252.225-7009 (Dec 2019):</p> <p>a) <i>Definitions.</i> As used in this clause—</p> <ul style="list-style-type: none">• “Alloy” means a metal consisting of a mixture of a basic metallic element and one or more metallic, or non-metallic, alloying elements.<ul style="list-style-type: none">i. For alloys named by a single metallic element (e.g., titanium alloy), it means that the alloy contains 50 percent or more of the named metal (by mass).ii. If two metals are specified in the name (e.g., nickel-iron alloy), those metals are the two predominant elements in the alloy, and together they constitute 50 percent or more of the alloy (by mass).• “Assembly” means an item forming a portion of a system or subsystem that:<ul style="list-style-type: none">i. Can be provisioned and replaced as an entity; andii. Incorporates multiple, replaceable parts.• “Commercial derivative military article” means an item acquired by the Department of Defense that is or will be produced using the same production facilities, a common supply chain, and the same or similar production processes that are used for the production of articles predominantly used by the general public or by nongovernmental entities for purposes other than governmental purposes.• “Commercially available off-the-shelf item” —<ul style="list-style-type: none">i. Means any item of supply that is —<ul style="list-style-type: none">a. A commercial item (as defined in paragraph (1) of the definition of “commercial item” in section 2.101 of the Federal Acquisition Regulation);b. Sold in substantial quantities in the commercial marketplace; andc. Offered to the Government, under this contract or a subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; andii. Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.• “Component” means any item supplied to the Government as part of an end item or of another component.• “Electronic component” means an item that operates by controlling the flow of electrons or other electrically charged particles in circuits, using interconnections of electrical devices such as resistors, inductors, capacitors, diodes, switches, transistors, or integrated circuits. The term does not include structural or mechanical parts of an assembly containing an electronic component, and does not include any high performance magnets that may be used in the electronic component.• “End item” means the final production product when assembled or completed and ready for delivery under a line item of this contract.• “High performance magnet” means a permanent magnet that obtains a majority of its magnetic properties from rare earth metals (such as samarium).• “Produce” means -<ul style="list-style-type: none">i. Atomizationii. Sputtering; oriii. Final consolidation of non-melt derived metal powders• “Qualifying country” means any country listed in the definition of “Qualifying Country” at 225.003 of the Defense Federal Acquisition Regulation Supplement (DFARS).• “Specialty metal” means -<ul style="list-style-type: none">i. Steel -<ul style="list-style-type: none">a. With a maximum alloy content exceeding one or more of the following limits: manganese, 1.65 percent; silicon, 0.60 percent; or copper, 0.60 percent; orb. Containing more than 0.25 percent of any of the following elements: aluminum, chromium, cobalt, molybdenum, nickel, niobium (columbium), titanium, tungsten, or vanadium;ii. Metal alloys consisting of -<ul style="list-style-type: none">a. Nickel or iron-nickel alloys that contain a total of alloying metals other than nickel and iron in excess of 10 percent; orb. Cobalt alloys that contain a total of alloying metals other than cobalt and iron in excess of 10 percent;iii. Titanium and titanium alloys; oriv. Zirconium and zirconium alloys.• “Steel” means an iron alloy that includes between .02 and 2 percent carbon and may include other elements.• “Subsystem” means a functional grouping of items that combine to perform a major function within an end item, such as electrical power, attitude control, and propulsion. <p>b) <i>Restriction.</i> Except as provided in paragraph (c) of this clause, any specialty metals incorporated in items delivered under this contract shall be melted or produced in the United States, its outlying areas, or a qualifying country.</p> <p>c) <i>Exceptions.</i> The restriction in paragraph (b) of this clause does not apply to -</p>
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- 1) Electronic components.
- 2)(i) Commercially available off-the-shelf (COTS) items, other than—
 - (A) Specialty metal mill products, such as bar, billet, slab, wire, plate, or sheet, that have not been incorporated into COTS end items, subsystems, assemblies, or components;
 - (B) Forgings or castings of specialty metals, unless the forgings or castings are incorporated into COTS end items, subsystems, or assemblies;
 - (C) Commercially available high performance magnets that contain specialty metal, unless such high performance magnets are incorporated into COTS end items or subsystems; and
 - (D) COTS fasteners, unless—
 - (1) The fasteners are incorporated into COTS end items, subsystems, assemblies, or components; or
 - (2) The fasteners qualify for the commercial item exception in paragraph (c)(3) of this clause.
- (ii) A COTS item is considered to be "without modification" if it is not modified prior to contractual acceptance by the next higher tier in the supply chain.
 - (A) Specialty metals in a COTS item that was accepted without modification by the next higher tier are excepted from the restriction in paragraph (b) of this clause, and remain excepted, even if a piece of the COTS item subsequently is removed (e.g., the end is removed from a COTS screw or an extra hole is drilled in a COTS bracket).
 - (B) Specialty metals that were not contained in a COTS item upon acceptance, but are added to the COTS item after acceptance, are subject to the restriction in paragraph (b) of this clause (e.g., a special reinforced handle made of specialty metal is added to a COTS item).
 - (C) If two or more COTS items are combined in such a way that the resultant item is not a COTS item, only the specialty metals involved in joining the COTS items together are subject to the restriction in paragraph (b) of this clause (e.g., a COTS aircraft is outfitted with a COTS engine that is not the COTS engine normally provided with the aircraft).
 - (D) For COTS items that are normally sold in the commercial marketplace with various options, items that include such options are also COTS items. However, if a COTS item is offered to the Government with an option that is not normally offered in the commercial marketplace, that option is subject to the restriction in paragraph (b) of this clause (e.g. - An aircraft is normally sold to the public with an option for installation kits. The Department of Defense requests a military-unique kit. The aircraft is still a COTS item, but the military-unique kit is not a COTS item and shall comply with the restriction in paragraph (b) of this clause unless another exception applies).
- 3) Fasteners that are commercial items, if the manufacturer of the fasteners certifies it will purchase, during the relevant calendar year, an amount of domestically melted or produced specialty metal, in the required form, for use in the production of fasteners for sale to the Department of Defense and other customers, that is not less than 50 percent of the total amount of the specialty metal that it will purchase to carry out the production of such fasteners for all customers.
- 4) Items manufactured in a qualifying country.
- 5) Specialty metals for which the Government has determined in accordance with DFARS 225.7003-3 that specialty metal melted or produced in the United States, its outlying areas, or a qualifying country cannot be acquired as and when needed in—
 - (i) A satisfactory quality;
 - (ii) A sufficient quantity; and
 - (iii) The required form. In accordance with 10 U.S.C. 2533b(m)(4), the term "required form" in this clause refers to the form of the mill product, such as bar, billet, wire, slab, plate, or sheet, in the grade appropriate for the production of a finished end item to be delivered to the Government under this contract; or a finished component assembled into an end item to be delivered to the Government under this contract.
- 6) End items containing a minimal amount of otherwise noncompliant specialty metals. (Not applicable).
- d) *Compliance for commercial derivative military articles.* (Not applicable).
- e) Subcontracts.
 - 1) The Contractor shall insert this clause, ***as written herein***, in subcontracts for items (including commercial items) that contain specialty metals.
 - 2) When inserting this clause in subcontracts, the Contractor shall not further alter the clause other than to identify the appropriate parties.

Qualifying Country - DFAR 225.003 (December 2018)

"Qualifying country" means a country with a reciprocal defense procurement memorandum of understanding or international agreement with the United States in which both countries agree to remove barriers to purchases of supplies produced in the other country or services performed by sources of the other country, and the memorandum

	<p>of agreement complies, where applicable, with the requirements of Section 36 of the Arms Export Control Act (22 U.S.C. 2776) and with 10 U.S.C. 2457. Accordingly, the following are qualifying countries:</p> <ul style="list-style-type: none"> Australia Austria Belgium Canada Czech Republic Denmark Egypt Estonia Finland France Germany Greece Israel Italy Japan Latvia Luxembourg Netherlands Norway Poland Portugal Slovenia Spain Sweden Switzerland Turkey United Kingdom of Great Britain and Northern Ireland
411	<p>FAR/DFARS Flow Down: LORD Corporation FAR / DFARS Flowdown for Commercial Items or LORD Corporation FAR / DFARS Flowdown for Non-Commercial Items apply to this LORD purchase order. See the LORD Supplier web page (under "Key Documents") for additional information on the flowdown requirements. This LORD purchase order is for national defense use and may or may not be rated. If the purchase order is rated, all of the provisions of the Defense Priorities and Allocation System (DPAS) regulation (15CFR part 700, reference) shall be followed.</p>
415	<p>For GE Aviation End Use: This LORD purchase order is for product or services intended for GE Aviation (including GE Aviation subsidiaries and affiliates) end use. Compliance with GE Aviation Specification S-SPEC-1 (aeDMS # S-1000) is required.</p> <p><u>Metallic Raw Material Verification:</u> Supplier shall verify that the correct metallic raw material is issued for production or concurrent with the start of the first operational process step (reference GE Specification S-1000). Hand held spectrometry devices shall be utilized to verify 100% of material issued. Note: This requirement does not apply to hardware (fasteners, bolts, nuts) or standard components at the point of assembly. Serialized forgings and castings are excluded from this requirement. (Reference GE Aviation Specification S-SPEC-1, Paragraph Q, Item 5)</p>
425	<p>BUY AMERICA - US Material Only: This LORD purchase order is for parts that are covered by 49 CFR Part 661 and 49 U.S.C. 5323(j), BUY AMERICA REQUIREMENTS - SURFACE TRANSPORTATION ASSISTANCE ACT OF 1982, AS AMENDED. As such, all iron, steel and manufactured products used in the parts which are the subject of this purchase order shall be produced in the United States. The term "United States" includes the several states, the Commonwealth of Puerto Rico, the District of Columbia, Guam, American Samoa, the Virgin Islands and the Commonwealth of the Northern Mariana Islands. The addition of this clause to the LORD purchase order requires material certifications to specify country of origin of the material or any country where re-melting occurred (refer to Special Quality Clause 120).</p>
426	<p>Country of Origin: The Country of Origin shall be stated in English on the packing list for each line item shipment. The words "Country of Origin" shall be specifically referenced with the name of the country. The supplier packing list shall accompany the parts when shipped to any LORD Corporation facility or when parts are drop shipped to a location noted on the LORD purchase order.</p>
428	<p>Certification Req'd – REACH: The supplier shall submit certification indicating compliance with Regulation (EC) No 1907/2006 - Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. Compliance indicates that all supplied components contain no Substances of Very High Concern (SVHC) in accordance with Regulation (EC) No 1907/2006. If certifying an assembly, all components within the assembly must be compliant with REACH. REACH applies to <u>all</u> supplied material, including chemical substances.</p>

429	Certification Req'd – RoHS: The supplier shall submit certification indicating compliance to RoHS, <i>Restriction of Hazardous Substances</i> (EU Directive 2015/863), unless Special Quality Clause 069 is invoked on the LORD purchase order and applies per the instructions listed in Special Quality Clause 069. If certifying an assembly, all components within the assembly shall be compliant with RoHS. RoHS restricts the use of the following hazardous materials to the indicated levels: <ul style="list-style-type: none">• Cadmium (Cd): <0.01%• Mercury (Hg): <0.1%• Lead (Pb): <0.1%• Hexavalent Chromium (Cr VI): <0.1%• Polybrominated Biphenyls (PBB): <0.1%• Polybrominated Diphenyl Ethers (PBDE): <0.1%• Bis(2-Ethylhexyl) phthalate (DEHP): <0.1%• Benzyl butyl phthalate (BBP): <0.1%• Dibutyl phthalate (DBP): <0.1%• Diisobutyl phthalate (DIBP): <0.1%
430	Materials for Elastomeric Compounds: The supplier shall maintain an approved source list for any vendors (house code) of raw materials used in LORD elastomeric compounds. This source list shall be revision controlled and requires LORD approval via a Supplier Request (refer to Standard Clause P) prior to making additions or subtractions of approved vendors. A house code raw material shall be identified by a MTL-P-XXXX specification, where the vendor on the purchase order is listed as the raw material supplier on the qualified product list for the raw material.
431	High Strength Fasteners for Collins Aerospace: Fastener manufacturers producing externally threaded fasteners with a minimum ultimate tensile strength of 150,000 pounds per square inch (PSI) or greater shall be AS9100 registered and Collins Aerospace (formerly UTC Systems or UTAS) approved. This includes high strength fasteners produced to Collins Aerospace drawings, military, federal, and industrial specifications. Approved suppliers are listed in Collins Aerospace Report #80 under " <i>Fastener Manufacturers, High Strength</i> ". All special processes and non-destructive testing of Collins Aerospace, military, federal, and industrial specifications (externally threaded fasteners) with a minimum ultimate tensile strength of 150,000 pounds per square inch or greater shall be performed by a Collins Aerospace approved supplier (see Collins Aerospace Report 80/85).

Revision AM (11/4/2020)

- "Supplier Access" Section – Added "All attachments to LORD contacts or mailboxes shall be sent using Kiteworks.", removed all references to "FusionOps" and replaced with email, removed "or use the "SECURE FILE TRANSFER Site" link on the LORD Supplier web page". Updated all LORD Product Ship-to Locations to the Parker email address.
- O – Added new bullet point under "Additional Inspection Requirements" for inspection of reworked shot peen surfaces.
- P – Removed references to FusionOps and replaced with LORD Form 655.
- X – Changed minimum retention period to 15 years (was 10 years).
- Y – Added last bullet point for rework of shot peened surfaces.
- 349 – Deleted clause as this now is the same retention period as required per Clause X.
- 402 – Added last sentence to item d).