UTAS SUPPLIER PRODUCT-RELEASE PROGRAMS

APPROVALS:

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1.0 PURPOSE

The purpose of this document is to define the UTAS ES Supplier Authorization to Release Program in addition to the requirements and responsibilities for the UTAS ES Supplier Designated Quality Representative (DQR). This document also provides additional Quality Systems requirements that are not contained in the United Technologies Corporations ASQR-01 'Aerospace Supplier Quality Requirements'.

Note: UTAS ES: Electric, Environmental & Engine Systems (legacy Hamilton)

Note: This specification does not apply to the Windsor Locks Space Systems business entities.

2.0 SCOPE

2.1 AUTHORIZATION TO RELEASE PROCESS

The Authorization to Release (ATR) process is applicable to suppliers that provide product to UTAS facilities or drop ship product to UTAS suppliers or customers. ATR Suppliers shall use the ATR process for all UTAS product shipments, including supplier-to-supplier, supplier–to-distributor, distributor-to-distributor, and supplier-to-Strategic Logistic Center (SLC). Suppliers previously approved by UTAS ES (legacy HS) will be recognized as meeting DQR status. The procedures presented herein are general and may be tailored for individual program requirements or to fit unique Supplier/UTAS relations. ATR terms and conditions shall be documented in a Letter of Agreement (ASQR-01 Form 8) between the supplier and UTAS. Direct ship authority will be granted by UTAS on a separate Letter of Agreement.

2.2 ALTERNATE TO ATR PROCESS

Suppliers not approved for the ATR Process are required to request source inspection services per instructions located on the UTAS Supplier Portal. This required over-inspection service will be at the supplier's expense. Only the following sections of HSM17 apply:

- Order of Precedence per section 2.3
- Use of CQAR (third party source) or Receiving Inspection
- Nonconforming Material per section 5.5
- Design Control per section 5.6
- Supplier to Sub-Tier Offload per section 5.7
- Special Marking Requirements per section 5.8.4
- Applicable Document Revisions per section 5.9
- Raw Material per HSM19
- Special Process Control per sections 6.0

2.3 ORDER OF PRECEDENCE

The order of precedence, in circumstances of conflicting requirements, shall be:

1. Contract (i.e. Purchase Order, SA (Scheduling Agreement))
2. Drawing Referenced
3. HS/UTAS Specifications
4. Referenced Specifications
5. This procedure (HSM17)

3.0 DEFINITIONS

- **AS PROCURED:**
  Material procured in the blueprint heat treated condition. The heat treat specifications will have the "AS PROCURED" option added to the iLot drop down menu. Select this option when the material you have procured was procured in the blueprint heat treated condition.

- **AUTHORIZATION TO RELEASE (ATR):**
  A process that authorizes a supplier's representative (DQR) to act as an agent of UTAS who may perform process audits, product inspection, acceptance, and release. UTAS ATR process is documented through the iLot Release Process.

- **ALTERNATE METHOD OF MANUFACTURE:**
  Various special process specifications will have "ALTERNATE METHOD OF MFG (V)" option added to the iLot drop down menu. This option is for the process not being used when the blue print identifies two or more special processes being allowed. This is NOT to be used for any other situation.

- **BULK PACKAGING:**
  Parts too small to be individually stamped, typically high volume, low cost, manufactured or specifically designated parts (i.e. bag of industry standard washers, nut, etc.)

- **COMMERICAL OFF THE SHELF (COTS):**
  Commercially available items intended by design to be procured and utilized without modification (e.g., common electronic components).

- **CONTRACT QUALITY ASSURANCE REPRESENTATIVE (CQAR):**
  Contract Quality Assurance Representatives approved by UTAS (third party) to perform duties and responsibilities of UTAS Supplier Quality Assurance (SQA). CQARs are delegated product acceptance or release authority.

- **DEFECTIVE PART PER MILLION DEFECT (DPPM) RATE:**
  DPPM is a metric used to determine a supplier's performance based on receipt and acceptance of product, and is calculated as follows.

$$\text{DPPM} = \frac{\text{Number of Pieces Rejected}}{\text{Number of Pieces Received}} \times 1{,}000{,}000$$

- **DESIGNATED QUALITY REPRESENTATIVE (DQR):**
  A supplier representative (employee) approved by UTAS to perform Source Inspection, corrective action and related duties (formerly referred to as DSQRs).

- **DQR VERIFIED:**
  Various special process and material specifications will have "DQR Verified" as an iLot dropdown option. By selecting DQR VERIFIED, the DQR is signifying that they have verified compliance per the specification requirements and the iLot MIC long text.
  - For special processes, the supplier may not be restricted, however the DQR is required to verify compliance per the specification requirements. For example PN15.12 requires the DQR to verify that the correct primers / top coats were utilized.
  - For materials, approved sources may be required per the specification, as well as additional verifications. For example, MS22.01-01 requires the DQR to verify manufacturing by the approved source listed in the specification or associated addendum (ADD).

- **ESCAPE:**
  An escape event is defined as the return of parts and other delivered products that do not meet contractual requirements.

  Significant escape - a safety related escape or an escape resulting in considerable business impact (e.g. causing significant customer installation or assembly line stoppage, removal/tear down, inventory recalls or missed deadlines or contracts).

- **FIRST ARTICLE INSPECTION REPORT (FAIR):**
  A First Article Inspection Report is to give objective evidence that all engineering, design, and specification requirements are correctly understood, accounted for, verified, and recorded. First Article Inspection Reports shall be performed accordance with SAE AS9102 and additional requirements detailed in ASQR-01 and HSM236.

- **HS FURNISHED:**
  Hamilton Sundstrand/UTAS furnished material. There are times when HS/UTAS furnishes material. When this occurs and the material has already gone through the various special processes identified on the blueprint, select "HS FURNISHED" option from the iLot drop down menu.

- **INSPECTION LOT (iLot):**
  An Inspection Record generated by an approved individual using the Electronic Release Process application. The record applies to a specific quantity of parts inspected at a given time and provides the status of inspection approval based on provided requirements.

- **MONTHLY ROLLING AVERAGE:**
  Monthly Rolling Average is calculated using the average of the DPPM value for each of the months specified. For example, a 3 Month Rolling Average would average the current and two preceding months DPPM value.

- **NOTIFICATION OF POTENTIAL QUALITY ESCAPE (NOPQE):**
  NOPQE is an escapes management process to report potential product non- conformances and document relentless root cause and corrective action. UTC Form 6 is used to document supplier non-conformances found at a supplier's facility concerning product that has shipped. Supplier to send in NOPQE via the Supplier Request for Information system within 24 hours.

- **PRODUCTION PART APPROVAL PROCESS (PPAP):**
  PPAP is a series of analyses of various aspects of a production manufacturing process. The purpose of this process is to provide evidence that UTC member engineering design, record and specifications requirements are properly understood and fulfilled. The goal is to demonstrate the established manufacturing process has the potential to produce product that consistently meets all requirements at the intended production rate**.**

- **QUALITY NOTIFICATION (QN):**
  A Quality Notification is a request to the supplier for Containment, Root Cause and Corrective Action for product delivered and found to be nonconforming. A QN is also issued to a supplier for unacceptable findings resultant of an audit or product assessment.

  V1 QN was previously known as a CAD (Conditional Advance Disposition) that is identified by the supplier and submitted to UTAS through the Supplier Portal. Note that V1 QNs do not affect the supplier's quality rating.

  V2 QN is identified by UTAS and communicated to the supplier through a QIM.

- **SUPPLIER SOURCE INSPECTION (SSI)**
  Supplier Source Inspection (SSI) is an internet web-based method to communicate to Suppliers, SQARs and others; current contractual requirements for Purchased Parts. It collects data necessary to release product (Lot Date Codes, Serial Number, Key Characteristics, Materials, etc.) and makes information readily available for use. It provides for direct shipment to point of use, bypassing RI and Material Lab, triggers payment, Supplier Ratings and other systems.

- **SUPPLIER TO SUPPLIER SOURCE INSPECTION:**
  Product release performed by sub-tier supplier currently doing business with UTAS to supplier holding the direct UTAS purchase order.

- **SUPPLIER QUALITY REPRESENTATIVE (SQR):**
  A SQR is an individual performing functions as defined by this procedure as well as applicable HS/UTAS procedures. There are three types of SQRs used by UTAS, they include:
  - Supplier Quality Assurance Representatives (SQAR), UTAS or UTC employee
  - Contract Quality Assurance Representatives (CQAR), Contract Employee
  - Delegated Quality Representative (DQR), Supplier's Employee

4.0 UTAS SOURCE INSPECTION

When a supplier must have UTAS perform source inspection (SQAR or CQAR), the supplier must request source inspection services per instructions located on the UTAS Supplier Portal under the Help section.

All First Article Releases for Flight Safety Product, Full and Partial (Delta), must be approved by a UTAS Employee (SQAR) and Source Inspected by the SQAR or authorized delegate of UTAS. Subsequent releases of Flight Safety Product can be performed by the DQR.

5.0 AUTHORIZATION TO RELEASE (ATR) PROCESS

5.1 ELECTRONIC RELEASE ACCESS

Supplier self-release requires access to UTAS Supplier Portal. For all self-released product, the supplier shall complete an electronic source inspection record (iLot) using the Electronic Release Process.

Note: iLots are acceptable substitutes for Certificates of Conformance.

5.1.1 ATR Supplier Selection

To be considered for the ATR Program, a supplier shall meet the following criteria:

- Be listed on the current UTAS Quality Approved Supplier List
- Be under the cognizance of the Supplier Quality Assurance organization
- Have a satisfactory or better rating for the last system audit or have an approved corrective action plan for the last system audit.
- Hold a valid AS9100 certificate per the ASQR-01 requirements for manufacturers or AS9120 certificate per theASQR-01 requirements for distributors. Exceptions require approval from UTAS.

5.1.2 ATR Supplier Approval

To be approved for the ATR Program, the supplier shall:

- Select qualified employees from the quality department considered competent to perform the required duties of a DQR.
  Note: The number of DQRs approved for a specific supplier shall be commensurate with the workload and appropriate contingency factors (vacation, holidays, illness, shift coverage, fluctuations in PPM, First Article audits, etc.). It is highly recommended a minimum of two DQRs be available at all times for all UTAS Suppliers. One DQR will serve as the Primary, taking overall responsibility for the program, with all others serving as alternates. When the supplier cannot provide DQR coverage, the supplier is responsible for charges that may occur through the use of a third party agency (CQAR) under UTAS's control.
- Submit ASQR-01 Form 8 (DQR Letter of Agreement)

5.1.3 ATR Supplier Requirements

Suppliers approved for the ATR program shall:

- Notify the UTAS/CSC Help Desk when a DQR is leaving their position

5.2 ATR SELF-RELEASE RESTRICTIONS

At the discretion of UTAS SQA Management, the below Over-Inspection may be implemented for all parts or select number of parts procured by or for UTAS.

Note: UTAS reserves the right to impose chargebacks for non-compliant FAIs and escapes (QNs). These chargebacks, however, do not preclude, nor in any way limit UTAS from collecting additional damages resulting from these Escapes and recovering additional costs which UTAS may incur from such Escapes. UTAS reserves the right to override any provision of the escalation policy.

Both PPM (Parts Per Million) and Escape quality metrics are based on the last 6 months.

5.2.1 Double DQR Over-Inspection

Implementation of Double DQR Over-Inspection may take place when any of the following occur:

- Actions taken by the supplier have been determined detrimental to the best interest of UTAS
- Supplier PPM >250
- Significant or repeat escape to UTAS or to a UTAS customer
- Major audit finding (UTAS or Industry audit)
- Loss of QMS Certification

Criteria for removal of Double DQR Over-Inspection:

- Zero Defects (sustained for three months)
- Closure of audit findings

5.2.2 Third Party Over-Inspection

Implementation of Third Party Over-Inspection may take place when any of the following occur:

- Actions taken by the supplier have been determined detrimental to the best interest of UTAS
- Supplier PPM >250
- Significant or repeat escape to UTAS or to a UTAS customer
- Major audit finding (UTAS or Industry audit)
- Loss of QMS Certification
- If Double DQR Over-Inspection is not effective (three months)

Note: UTAS reserves the right to move directly to third party over-inspection in lieu of double DQR Over-Inspection. Third party over-inspection shall be funded by the supplier.

Criteria for removal of Third Party Over-Inspection:

- Zero Defects (sustained for three months)
- Closure of audit findings
- No Third Party findings during Over-Inspection (sustained for three months)

5.3 DQR PROCESS: BECOMING A DQR

A Delegated Quality Representative (DQR) is a supplier representative approved by UTAS to perform Source Inspection and related duties.

5.3.1 DQR Candidate Selection

Minimum qualifications for candidates are:

- Employee of the supplier
- Direct report through the Quality Organization
- Yearly eye exams by certified eye professional (e.g. optometrist, certified company nurse) per requirements of ASQR-01 with objective evidence to be kept on file at the supplier. The requirements detailed in ASQR-01 must be followed for each type of inspection performed.
- A minimum of (6) six months (preferred one year) experience with UTAS product, specifications, and drawing requirements

- A minimum of (1) one year experience in the inspection field or Quality environment.
- Have access to the Supplier Portal (work with your supplier portal administrator for profile setup and Quality - SSI permission request)
- The ability to read, write and understand English

Note: These requirements can be tailored by UTAS SQA Management depending on the experience of the potential DQR candidate, and/or commodity being supplied.

5.3.2 DQR Candidate Submittal / Approval

The below must be completed for each candidate and submitted to UTAS SQA Management (Supplier's SQAR or to esilk@hsd.utc.com):

- AS13001 Certification
- UTAS specific DQR Training Webinar and DQR Training Modules Test (available on the Supplier Portal)
- ASQR-01 Form 8, Letter of Agreement (LOA) (if this was previously completed and still valid, provide a copy of this for evidence)
- ASQR-01 Form 7, DQR Candidate Form

Note: All forms / documents relative to the DQR Process must be in English.

Once the above documentation has been submitted, the applicable UTAS SQAR will review and, at his/her discretion, conduct an interview to determine the candidate's approval for Production or Probationary access. The SQAR will ensure the candidate has thorough knowledge of all applicable UTAS procedural requirements, purchase orders, engineering drawings (change levels), specifications, product specific quality plans, quality system requirements, required special process approvals and SSI permissions.

Upon approval, the DQR Candidate shall receive an approval email and be granted access to the Electronic Release application on the UTAS Supplier Portal.

The UTAS SQAR will be the prime contact for any questions or issues that may arise during the performance of the DQR's duties.

Note: SQA Management reserves the right to deny applicant to move forward with DQR privileges.

5.3.3 Probationary DQR Process

Upon UTAS discretion, a DQR may be set up as a Probationary DQR. Probationary DQRs shall only be authorized to generate "M" code Releases during their

Probationary period. These "M" code Releases cannot be shipped. All "M" code Releases must have Over-Inspection verification performed and shipped with an "F" code Release.

Over-Inspection verification can only be performed by one of the following:

- Non-probationary DQR at the site
- UTAS Supplier Quality Assurance Representative (SQAR)
- Third Party Source Inspector (CQAR)

The duration of probation can be modified at the discretion of the UTAS SQAR. Factors to be taken into account include but are not limited to; the quantity of Releases generated, familiarity with the product, product complexity, and overall understanding of this document.

The applicable UTAS SQAR shall review or conduct an interview using ASQR-01 Form 7 to determine the candidate's approval to be released from probation.

5.3.4 DQR Recertification Process

Recertification is required every 3 years. Failure to comply with the below recertification requirements will result in the loss of DQR status and SSI access.

Recertification requirements:

- Current AS13001 certification
- Retake of the UTAS specific DQR Training Webinar and DQR Training Modules Test (available on the Supplier Portal)

Note: Updated ASQR-01 Form 7 and Form 8 may be requested, as applicable.

Note: If a DQR holds a current certification, it is still valid until the DQR's next scheduled training is completed on schedule.

5.3.5 DQR Suspension

At the discretion of UTAS SQA Management, a DQR may be suspended from the ATR program at any time. Suspension applies only to the specific DQR or DQRs approved by UTAS.

Suspension from the DQR Program may take place when any of the following occur:

- UTAS determines DQR coverage is no longer required.
- Actions taken by the DQR are detrimental to the best interest of UTAS.
- If there are Repeat Escapes

- It is determined that Electronic Release identifications and passwords are shared with other employees.
- No DQR activity occurring in a 12-month period.
- Email failure – DQR email address and Electronic Release user I.D. must be the same.
- Significant escape to UTAS or the OEM customer released by the DQR.

Suspended DQRs may be reactivated if the requirements below are met. DQR may be placed on a conditional probation and may require SQAR evaluation and training.

- A DQR who has not created an release in a 12 Month period will have to retake the DQR test
- Follow requirements detailed in ASQR-01 and the DQR Candidate Selection section above
- Restored access to UTAS Supplier Portal

SQAR is responsible to ensure DQR is adequately trained prior to reactivation. SQAR may administer DQR test or require DQR to attend onsite training.

5.4 DQR RESPONSIBILITIES

5.4.1 Access

1. The DQR's Supplier Portal account must have access to view drawings, specifications and early warnings.
2. DQRs are required to navigate throughout the Supplier Portal to access all information within (i.e. revision levels, PO note codes, SRI information, report card, QN submittals, ASQR-01 specs, etc.)
3. DQRs are required to review all quality and general alert messages, as well as any early warnings to confirm that no issues apply to parts being or already shipped.

Note: Related documents and specifications can be found on the UTAS Supplier Portal by going to the Help/Training tab and then navigating to the Quality section.

5.4.2 General Review

1. Review purchase order and supplements for all quality and any additional embedded requirements.
2. Review Engineering Changes and Effectivity Codes and Dates, Bill of Material (BOM) and Approved Suppliers, as required.
3. Verify the manufacturing/inspection traveler to ensure all operations were completed and accepted in accordance with the applicable purchase order, all drawings and all specification requirements.

4. Review all manufacturing data is completed to the drawing and part revision levels at the latest revision and/or meet purchase order revision requirements.
5. Review drawing and/or purchase order for non-flight safety Critical to Quality Characteristics (CTQC) or Key Product Characteristic (KPC) requirements. DQRs shall validate in the Control of Process and Safety (COPS) database that required data has been collected and recorded. See section 5.4.5 for Flight Safety requirements.
6. Review the Purchase Order for any UPPAP requirements (ASQR-09.2) and ensure compliance per Section 5.4.3 of this document.
7. Verify that approved suppliers are used for Process/Material Specifications identified on Report 80 and Report 85 for all HS/UTAS designed product. Nadcap Special Process suppliers for all source control product is preferred. Verify all certifications have correct specifications and revisions and are signed and dated.

   Note: Report 80 and 85 is available on the UTAS Supplier Portal.

8. Verify compliance to HSM19 regarding Raw Materials and Unbroken Traceability.
   - Raw Material procurement must meet HSM19 including a Mill composition certificate that has been verified and meets specification requirements.
   - If required, verify material verification testing results are provided and within engineering and specification tolerance.
   - Verify all applicable material related test requirements are met prior to initial release of any part. When required, subsequent testing will be imposed by purchase order or by specification.
   - Review certifications and/or receiving inspection record (receivers) for unbroken traceability back to the original component and/or equipment manufacturer per requirements of HSM19.
9. As required, verify the ATP is approved and revision controlled. Verify Applicable Functional Test data sheets (i.e. ATP) and inspection operations are complete and acceptable (within engineering tolerance). Verify variable results are recorded when applicable. Test data sheets shall include the following minimum requirements:
   - Test specification number, revision status, amendment number and addendum
   - Part number / serial number and revision letter of material / component being tested
   - Test paragraph, required reading/actual reading (use positive statement, e.g., “No Leakage” if actual reading is not quantifiable)
   - Date test was performed

- Operator identification (Inspection approval signature / stamp)
- Blank entries that are not applicable shall be noted "N/A"
- As applicable, all testing equipment is properly listed and accounted for

10. When required on the purchase order, send the full conformance package with all documentation requirements established by the purchase order and Test Data Package to UTAS. This shall include, as applicable:
    - C of Cs – Certifications of Conformance
    - Certifications of materials, sub-tier processes, material testing, etc.
    - Certifications of special processes, including processes provided by sub-tier process suppliers
11. Verify all documentation and all signatures are clear and identifiable.

5.4.3 UPPAP

UTAS reserves the right to invoke ASQR-09.2, "UTC Production Part Approval Process", based on various risk assessments. The DQR is responsible for ensuring compliance to this specification when invoked.

The Supplier DQR shall review the UPPAP Objective Evidence Package for the following:

- Overall Objective Evidence Package completeness and accuracy
- Documented action items for any UPPAP element not fully completed
- UPPAP Submission forms are signed by supplier management

Note: All UPPAP forms and training material are available on the UTAS Supplier Portal.

The DQR will not ship UPPAP parts until receiving back from UTAS a signed UPPAP Form 1 with either Full Approval, Interim Approval, or an authorized deferral. Reference ASQR-09.2 for more detail.

DQR shall ensure completed UPPAP Objective Evidence file is maintained per the requirements defined in ASQR-09.2. They will also retain the UPPAP Form 1 on file at the supplier's site.

In the event that a UPPAP Form 1 is approved with a deferral, it is the DQR's responsibility to assure that the assigned actions are closed per the supplier commitments on the form, and that the shipments stop if those actions lapse.

5.4.4 Inspection

1. If sample inspection is utilized, verify sample plans meet all requirements of ASQR-20.1.

Note: Part Type Sampling Clarification for Distributors:

- Electronics requires 100% visual inspection
- COTS or "HS COTS per HSM236" requires 100% visual inspection and verification of C of C from Manufacturer
- BTP (Build to Print Drawings):
  - Distributor is responsible for verifying that the Manufacturer is compliant to ASQR-20.1 inspection (this includes oversight by the Distributor)
  - Or the Distributor can perform the inspection themselves

2. Inspect entire manufactured lot presented for DQR inspection; verification that 100% visual and 100% part marking has been completed. DQR must verify the part marking approval process has been followed correctly.
3. For applicable 2D marking, verify the marking has been:
   - Validated – Confirm that the data content contained in the 2D Data Matrix Symbol is accurate and conforms to the DoD Construct format as well as ISO15434 and ISO15418.
   - Verified – Confirm that the printed symbol meets the quality guidelines as specified by MIL-STD-130.
4. Perform inspection on a minimum of 3 pieces and 5 characteristics (unless lot size or characteristics are less) for all Master Lots or individual releases. The characteristics selected shall vary for each lot ensuring any tight tolerances are selected.
   - If dimensions are required to be inspected in the Electronic Release Process, they are to be inspected and input into the iLot. The Inspection data defined by the supplier (3 Pieces and 5 Characteristics Min) shall be recorded in the Quality Notes of the iLot or attached to the iLot.
   - **Note:** In the event the supplier is performing SPC, do not choose a characteristic that has a CPK greater than 1.33.
   - The DQR shall verify all SPC features are properly accounted for during manufacturing and in-process inspection and that SPC data has been collected and recorded per HSC16199 requirements into the COPS Database.
5. Review that the First Article is complete and meets purchase order requirements.
   - Review and ensure all First Article documentation is properly completed and per AS9102, ASQR-01 and HSM236.
   - Ensure that First Article review form QC-1700.00 has been properly completed.
   - Verify Form 1 has valid UTAS signature when required per the purchase order prior to shipping.
   - Verify the FAIR properly signed and dated by the preparer, approver and customer (when applicable).

- Maintain original and delta FAIR and associated documentation/certification on file for SQAR review/approval during scheduled DQR audits.

Note: DQRs do not have customer signature authority. DQRs are not authorized to ship product prior to FAIR signature approval by UTAS when a signed Form 1 is required by the PO.

5.4.5 Flight Safety Hardware

All approved DQRs need to have access to the Control of Process and Safety (COPS) database when HSC16199 has been flowed down on the drawing or purchase order.

The DQR shall review drawing and/or purchase order for flight safety requirements per HSC16199 and verify all Flight Safety characteristics and Flight Safety features have been inspected 100% and variable data has been recorded.

DQRs shall validate in the COPS database that:

- Identified Flight Safety Characteristics (FSCs) for Class 1 parts and Critical to Safety Characteristics (CTSC) for Class 3 parts have UTAS approved frozen planning.
- Frozen planning revisions used to produce parts being released are the same as what was approved in the COPS database.

Initial Release and subsequent Partial (Delta) First Article Inspection Reviews can only be performed by an SQAR. Subsequent releases not involving First Article Inspection reviews may be performed by a DQR or CQAR.

See section 5.4.6 for sub-tier requirements.

5.4.6 Supplier to Supplier

Product requirements performed by a sub-tier supplier are the responsibility of the supplier holding the UTAS Purchase Order. That supplier is responsible to communicate and obtain all applicable information and certifications from their sub-tiers as required by UTAS flow down.

The supplier may flow-down the use of the most current revision of Form UTAS-FRM-0034-00 or equivalent check list to obtain this information from their sub-tiers. **For all castings, forgings, and flight safety parts the use of this process is mandatory.** For castings, forgings, and flight safety product, the completed UTAS-FRM-0034-00 or equivalent shall be approved by a UTAS approved DQR or

authorized UTAS Delegate. This information shall be considered a Quality Record and be retained per ASQR-01 requirements.

For Flight Safety Releases, HSC16199 requirements shall be followed and flown down to the sub-tier suppliers.

5.4.7 Castings and Forgings

Procurement of all Hamilton Sundstrand/UTAS designed castings and forgings shall be procured from a Hamilton Sundstrand/UTAS approved supplier and require an UTAS approved release for all shipments.

Supplier shall not ship production castings or forgings to UTAS or another UTAS supplier without having a written FAIR approval from UTAS Procurement Quality Assurance. Suppliers shall notify the UTAS buyer when a casting/forging FAIR is ready for UTAS PQA review. Castings/Forgings Flight Safety First Article parts must be released by the SQAR or delegated UTAS Representative.

All castings requiring radiographic inspection shall be serialized and the x-ray film retained by the supplier per the requirements of ASQR-01.

5.4.8 Non-conformances

1. Review Quality History for prior escapes and that corrective action and containment has been completed.
2. Review any QNs and/or any returned hardware to ensure that the dispositions are fully completed and inspected as applicable.
3. Review manufacturing/inspection operations for any process interruptions that may have an adverse effect on product quality, such as heat treat, oven curing, plating, soldering, welding, brazing, etc., have been properly reworked or dispositioned through UTAS Material Review Board (MRB).
4. DQR shall be actively involved in Customer Escape investigations to verify corrective actions and/or applicable action plans were completed as stated in the QN response.
    - DQR must verify 100% inspection for any deviated characteristics for a minimum of the next (3) three consecutive manufactured lots.
    - Report any suspect quality issues to their representative SQAR.
5. Perform quality-related follow up activities that include, but are not limited to, corrective action resulting from audits, surveys, and nonconforming material escapes.

5.4.9 Product Release

1. Perform all production product releases through the Electronic Release / iLot, assuring completion of all associated documentation, inspections, and tests in accordance with HS/UTAS procedures and specifications.
2. The DQR shall not be the same associate who performed the Final Inspection for the P/N listed on the PO being released in the Electronic Release (ASQR-20.1 inspection).
3. Approve material for shipment by completing applicable forms and affixing stamps as required by specific purchase order and UTAS specification requirements.
4. Attach the following documents to the iLot:
    - Material certs, Special Process certs, C of C, ATP, when required by the PO Quality Notes
    - AS9102 Form 1, at a minimum, for First Article Lots (AFAI)
    - Applicable Traceability (serial numbers, lot date codes). As an alternate, this information can also be input directly into the iLot Quality Notes
    - Dimensional Inspections per section 5.4.4 (3 Pieces and 5 Characteristics Min). As an alternate, this information can also be input directly into the iLot Quality Notes
5. Allowance of a SSI/iLot by-pass or partial SSI/iLot acceptance may only occur when granted authority by UTAS ES Supplier Quality Manager or approved delegate. In the event of this occurrence specific instructions will be provided as applicable with the authorization to ensure proper receipt and containment at UTAS for required follow-on actions

5.4.10 Over-inspection Audits

Over inspections shall be controlled through the online Electronic Release application. Any subsequent audits must be performed by a different DQR. A second DQR is mandatory to release an “Audit or ‘M’ Code” Release. If a second DQR is not available, contact a CQAR per instruction on the UTAS Supplier Portal. This shall be at the Supplier’s expense.

Audits will be required when:

- Management Override exists
- Random Audit Process imposed by the system
- First Article Inspection Report Review
- DQR on probation
- Significant escape to the Customer

5.4.11 Special PO Types

For special PO types such as ZTOP, suppliers shall complete UTAS-FRM-0034-00 in place of creating an iLot when HSM17 is called out on the PO. A copy of the UTAS-FRM-0034-00 shall be included with the physical parts. ZTOP orders are utilized for offloads and processing of customer returned material.

Note: These were the old *OPCRM, *OPCRMM, *OPCRMP for customer returned material and *OPRWK, *OP, *SOP for Offloads.

5.5 NONCONFORMING MATERIAL

The supplier shall establish and maintain documented procedures to ensure product not conforming to a specified requirement is prevented from unintended use or installation. This control shall provide for identification, documentation, evaluation, segregation (when practical), disposition of nonconforming product, and for notification to the functions concerned.

5.5.1 TYPE 1 Nonconformance

Nonconforming items of Hamilton Sundstrand/UTAS design must be dispositioned by Hamilton Sundstrand/UTAS Material Review Board (MRB) before goods or services are delivered. Type 1 disposition of supplier propriety items or components that could by itself, or by relation to other components, affect system or end item specification, reliability, weight, safety, and appearance when it is a significant factor, requires approval by Hamilton Sundstrand/UTAS MRB prior to release. Disposition by Hamilton Sundstrand/UTAS MRB may be obtained by submitting 'Conditional Advance Disposition/QN" per 5.11.3.

The supplier shall not proceed with a repair procedure unless authorized by Hamilton Sundstrand/UTAS MRB.

5.5.2 TYPE II Nonconformance

Suppliers approved by Hamilton Sundstrand/UTAS may perform Type II material review actions on proprietary products provided the subject product was completely designed, developed and funded by the supplier.

Type II is defined as any departure from requirements not falling into the category of Type I. These Type II dispositions, when authorized, shall be made available upon UTAS request.

Requests for Type II MRB authority by specific product types (when required) are to be transmitted to UTAS Procurement via Supplier Request for Information (SRI)

available on the UTAS Supplier Portal. Additional information may be requested by UTAS such as review and/or approval of the supplier's nonconformance and corrective action procedures, instructions and personnel.

UTAS authorizes the supplier's Type II approval by issuing letter of delegation. The delegation will specify the approval level and any specific restriction or instructions.

Suppliers providing standard catalog items or commercial off the shelf (COTS) items are not required to request Type II MRB authority.

5.5.3 Vendor Quality Notification (QN) Requirements

The QN application can be found on the Quality Notification link on the UTAS Supplier Portal. There is training required to be completed prior to obtaining access to the QN application.

If nonconforming material is detected during the manufacturing process that requires 'accept as is' or 'repair' disposition from UTAS, the Supplier is responsible for ensuring the following:

- QN has been generated and submitted (including root cause and corrective action).
- QN has been disposition and approved by UTAS prior to shipment.
- Requested repair activity is completed and conforming to requirements.
- Supplier has implemented corrective action to address root cause of the QN.
- iLot generated for affected product accurately documents QN activity in the quality notes of the iLot.
- QN material dispositioned as scrap has been properly mutilated (rendered unfit for use) at the supplier.

5.6 DESIGN CONTROL

Suppliers with design authority shall establish and maintain documented procedures to control and verify the design of the product in order to ensure the specified requirements in CEP100, Hamilton Sundstrand Supplier Configuration Management Requirements, are met.

5.7 SUPPLIER TO SUB-TIER OFFLOAD REQUIREMENTS

Complete Offload: Supplier outsourcing the entire manufacturing process of HS/UTAS designed hardware (including sub-tier source selection of any applicable special processes).

Partial Offload: Supplier outsourcing a part of their manufacturing process (including designated source or sub-tier source selection of any applicable special processes) to their sub tiers.

For all offload of UTAS designed hardware, whether complete or partial, the Primary supplier to UTAS is required to ensure all UTAS requirements are flowed-down to their sub-tier. This is to include, but not limited to, flow down of all purchase order requirements, quality requirements, engineering design and specification requirements, raw material and special processing requirements including all and embedded ASQR-01, HSM19, HSM17 and HSM236.

The Primary supplier to UTAS is responsible to ensure all applicable documents and specifications are at the latest revision and available or provided to their sub-tier.

The supplier shall validate all offloaded features, characteristics and compliance to UTAS requirements. Evidence of flow-down and validation must be available for audit and/or as requested by UTAS.

The use of a Supplier Self Verification Process Delegation Program must be compliant to AS9117 & AS13001 and submitted to UTAS Supplier Quality on an SRI. This request must be approved prior to implementation of any program.

5.8 PART STAMPING/SPECIAL MARKING REQUIREMENTS

5.8.1 Cage Code 73030

For traceability purposes, Product Acceptance Stamp (Oval with last 3 digits of Supplier Code) is required for Drawings with Cage Code 73030.

Product acceptance stamps are used for stamping all hardware in which the flow down is required by P.O. or all Heritage Hamilton drawings with a cage code of 73030. The supplier will need a set of oval stamps for stamping parts. The oval stamp must contain the last three digits of the company's UTAS SAP supplier code.

These stamps should be approximately the same size as the part marking and must be legible. Parts need to be stamped to be in conformance with UTAS part acceptance requirements. Place stamps using permanent ink in contrasting colors to the part identification information. Stamp marking may be of the same type as the part marking specified on the drawing.

Note: A complete tutorial guide for marking parts can be found on the UTAS Supplier Portal under Part Identification Generator.

5.8.2 General Electric

No stamps are allowed on General Electric part numbers.

5.8.3 Required Stamp Locations

Place acceptance stamp to the left of the part number except as noted below:

Situation	Location of Stamp
Insufficient space	Above or below UTAS Part Number
No UTAS Part Number on part	Stamp container & associated paperwork
Part size too small	Stamp container & associated paperwork
Bulk Packaging	Prior UTAS approval required (Via SRI Process) in order container or associated paper work

5.8.4 Special Marking Requirements

Examples of Special Marking Requirements for UTAS Parts:

Part Status	Required Acceptance Stamp
Parts which passed Pressure Test specifically called out on the UTAS drawing	upplier may mark letters “PT” in permanent ink or in accordance with approved drawing technique Locate near part number but slightly separate from it
Parts manufactured to unreleased drawings (Identified with “X” in part number)	Mark “Diamond R” at left side of part number
Parts manufactured for Engineering use only Diamond (TS) parts are not upgradeable	Mark “Diamond TS” at left side of part number No SSI required with “Diamond TS” products
NDT Stamping	Stamp to the right (above or below if space restrictions) of applied part number or alternately next to any serial number or on a prominent surface
Instructions call for identifying NDT acceptance by dye marking	Method / Pieces Inspected / Pieces Not Inspected In Sample Penetrant / Maroon / Yellow MPI / Blue / Orange Radiography / Blue / Orange

5.9 APPLICABLE DOCUMENT REVISIONS

Where the Drawing refers to a material, process or inspection specification, drawing or standard that has been revised, cancelled or superseded, the following shall apply:

- If the Drawing refers to a specific issue or revision of the document, that issue or revision shall be used.
- If the Drawing does not refer to a specific issue or revision of a document, the following shall apply:

- Standard Parts. For standard parts (such as AN, NAS, MS, M, etc.) the part to be used may be any revision in effect prior to cancellation or supersession. When utilizing Mil-Std parts a change from MIL-X to MIL-DTL or MIL-PRF is considered a change in the revision letter of the document not a new specification.
- Material, Inspection, Process and Acceptance Specifications
  - If the document has not been cancelled, then only the current revision may be used.
  - Where the document is cancelled, with or without supersession, the last issue prior to cancellation or supersession shall continue to be applicable.

For superseded UTAS Specifications a SRI shall be submitted for direction.

6.0 UTAS APPROVED SPECIAL PROCESSES, NDT AND TESTING REQUIREMENTS

6.1 APPROVED SPECIAL PROCESSES

All process and material specifications that appear on any UTAS engineering drawing, and are also listed on Reports 80 & 85, require a UTAS approved source. Suppliers must use an UTAS approved supplier (except as noted in Table 1) when a specific material or manufacturing special process is listed in UTAS Report #80, "*UTAS Approved Process/Material Supplier Report*," or be listed as a UTAS approved supplier in UTAS Report #85, "*Supplier Internal Processes Report*."

6.1.1Report #80

Identifies UTAS approved suppliers who are capable of providing a special manufacturing process or material in accordance with applicable process/material specifications (e.g., HS, PN, CP, AMS, MIL STDs, etc.), typically as a service provider. Approved sources are listed in ascending order based on the UTAS supplier code number.

6.1.2Report #85

Identifies UTAS approved suppliers/fabricators who utilize their own captive internal special manufacturing process or material in accordance with applicable process/material specifications (e.g., HS, PN, CP, AMS, MIL STDs, etc.), typically in the production of UTAS product.

Note: Reports #80 and #85 can be viewed on the UTAS Supplier Portal.

Note: If a specification is listed in either UTAS Report #80 or #85, and no UTAS approved process supplier is listed, then the supplier shall submit an electronic SRI

(ASQR-01 Form 3) from the UTAS Supplier Portal to request an approved process supplier be identified. **The Supplier cannot ship product until the Special Process Supplier has been added to the 80/85 Report.**

Note: The below iLot drop down choices are only to be used as defined in section 3.0:

- As Procured
- Alternate Manufacturing
- DQR Verified
- HS Furnished

6.2 NADCAP ACCREDITATION REQUIREMENTS

As a prerequisite for obtaining UTAS approval for listing in UTAS Report 80 & 85, Nadcap accreditation is required for the following special processes: materials testing, chemical processing, coatings, heat treating/brazing, nondestructive testing, nonconventional machining, surface enhancement, welding/brazing and electronics. Source Control suppliers should be Nadcap accredited or use Nadcap accredited sources for special processes as defined by Table 1.

For electronics manufacturers of Printed Wiring Boards, Circuit Card Assemblies, and Cable and Harness Assemblies, inspectors and hand assembly/solder operators shall have the applicable IPC certification. Valid IPC certificates are required as noted:

- Printed Wiring Boards – IPC-A-600 (all inspectors, including those validating micro-sections).
- Circuit Card Assemblies – IPC-A-610 and/or J-STD-001 (all inspectors, hand solder and hand assembly personnel).
- Cable and Harness Assemblies – IPC/WHMA-A-620 (modules applicable to scope of work) and J-STD-001, if any soldering is noted on the part drawing

6.3 MATERIALS TESTING LABORATORY REQUIREMENTS

When specified in the Hamilton Sundstrand/UTAS Purchase order, any product requiring product and/or material testing shall be performed by a Materials Testing Laboratory accredited by either Nadcap or by signatories to the International Laboratory Accreditation Cooperation (ILAC). Accreditation shall cover the scope of testing performed.

Other testing required by the engineering drawing and associated technical specification(s) necessary to complete a part shall be performed by the supplier's internal lab, laboratories accredited by either Nadcap or by signatories to the International Laboratory Accreditation Cooperation (ILAC).

Table 1
Requirements for Usage of UTAS Report 80 & 85 Approved Special Process Suppliers (Note 1, 2)

Drawing Designation	Examples	Site	UTAS Special Process Specs	MIL/Fed/Ind Special Process
	Released Production Drawings			
UTAS Design / Source Approval Item	17044534, 903D421, 4506783, C1006748, etc.	All	Yes	Yes
Source Control	5018794, 5900100, 5913596	All	Yes	No **(Note 5)**
Specification Control / Vendor Item Control Drawing/ Selected Item Drawing	17044534, 903D421, 4506783 etc	All	Yes	No
Altered Item Drawing	Same as Production Drawings	All	Yes	Yes
COTS	AN, MS, NAS, JN, JANTX, JANHC, Supplier Drawings	All	Yes	No **(Note 4)**
UTAS Std Parts Drawing	69234, 69240, 69603, 3415,	All	Yes	No **(Note 3, 4)**
	Advanced Released Production Drawings			
Advance Release Drawing	170XXXX rel 01 ARC 11	RFD	Yes	Yes
Advance Release X Drawing	579X2-81577-1 (Diamond R Material)	WLOX	Yes	Yes
Advance Release HSPS	450XXXX IAR 8	HSPS	Yes	Yes
	Non Production			
EP – Non Production	EP 1705968	RFD	No	No
Diamond TS- Non Production	579X2-821577-1 W/Diamond TS Purchase Order Note	WLOX	No	No
	Product Forms			
Rubber /Elastomeric Seals (excluding Industry std O-rings) AMS7259, AMS7276, etc. For Industry std O-rings follow requirements of Appendix 1	All Production drawings, including Industry Standard Parts.	All	Yes	Yes

Note 1: Except as modified above, all processes listed in Report 80/85 are considered restricted Special Processes and UTAS approved sources shall be used.

Note 2: "Yes" indicates that a UTAS approved Special Process supplier (Report 80 & 85) shall be used. Unless otherwise specified "No" indicates a non-UTAS approved supplier may be used if the P.O. supplier controls the Special Process supplier per AS9100 or ISO9001 and the related processing specification.

Note 3: FSCM 73030 drawings with a Standard Part title shall be treated as UTAS Design, Source Approval Item, Specification Control etc. as dictated by the drawing type.

Note 4: Exceptions to UTAS STD Parts, COTS and Standard catalog hardware are those noted in Appendix 1 and 2.

Note 5: All Special Processes performed to military, federal or industrial specification should be performed by a Nadcap accredited supplier.

7.0 PROCESS CERTIFICATION REQUIREMENTS

Per ASQR-01, all parts are subject to UTCQR-09.1. The DQR is responsible to verify compliance to this requirement.

In addition, UTAS may invoke key characteristics per HSC16199. It is the DQRs responsibility to assure compliance with specification and to verify all applicable Process Controls have been implemented. Prior to each shipment, the DQR must verify the required data is uploaded into the Control of Process and Safety Database (COPS) available through the Supplier Portal.

Note: Refer to HSC16199 and UTCQR-09.1 for definitions and detail requirements.

7.1 TEMPORARY KEY CHARACTERISTICS (TKC)

UTAS Supplier Quality Management reserves the right to flow down a TKC. A TKC is a Key Characteristic that is temporarily imposed based on an Escape and used to:

- Validate the effectiveness of the corrective action plan submitted by an UTAS Supplier in the event of a dimensional escape.
- Validate the effectiveness of the corrective action plan submitted by an UTAS Supplier in the event of a dimensionally related Conditional Advanced Disposition (QN).
- UTAS Engineering/Quality/Procurement may want to understand the capability for a given process/feature for design and/or root cause analysis purposes.

7.1.1DQR Responsibilities

The DQR is to verify that all TKCs have been properly accounted for during manufacturing and in-process inspection and that SPC data has been collected and recorded per HSC16199 requirements.

7.1.2DQR Release of Product

The DQR will ensure all TKC requirements listed are completed for any applicable UTAS part number identified with a TKC prior to shipping.

8.0 SUPPLIER REQUEST FOR INFORMATION (SRI)

UTAS has developed a Supplier Portal system to improve communications with suppliers using the Supplier Request for Information process. The system includes a central database for tracking progress and ownership of SRIs as well as maintaining a permanent record. Supplier and UTAS personnel will mutually have this visibility. A SRI shall be submitted through the Supplier Portal and may be used for items such as (reference ASQR-01):

- An anomaly noted in a drawing or specification that could result in a nonconformance

- Lack of clarity or definition in a drawing or specification
- A request for an alternate method to a quality system requirement
- Supplier Information on the Drawing or Specification has changed
- Any change that may affect quality which must be documented and communicated to UTAS via SRI prior to affectivity of the change. Reference Appendix 3 for changes requiring UTAS notification and/or FAI.

Note: The SRI form can be found on the Supplier Portal under the Quick Links.. A complete tutorial is also available in the Help Section.

Appendix 1: Commodity Requirements

O-Rings:

All O-rings supplied to UTAS must be individually packaged with the appropriate part marking on each bag. Bulk packaging is not allowed. Bag type must be in accordance with AMS2817 Type 3.

Industry Standard O-Rings:

Industry Standard O-rings must be made by a Hamilton Sundstrand approved manufacturing site for the material formulation of the O-ring. The approved manufacturing sites are listed in Hamilton Sundstrand's/UTAS's Report #80 under the material formulation. Hamilton Sundstrand/UTAS drawings listing Industry Standard O-rings with approved sources are excluded from this requirement.

Teflon Wire:

M22759/5, M22759/7, M22759/9, M22759/11 and MIL-DTL-16878 PTFE Teflon Wire must be Differential Scanning Calorimetry (DSC) tested per the requirements of Engineering Standard MS41.14 paragraph 3.0.

These requirements apply to all direct and indirect Hamilton Sundstrand/UTAS suppliers.

Appendix 2: HSF
Externally Threaded High Strength Fastener (HSF) Requirements

Fastener Manufacturers producing externally threaded fasteners with a minimum ultimate tensile strength of 150,000 pounds per square inch or greater shall be AS9100 registered and Hamilton Sundstrand/UTAS approved. This includes high strength fasteners produced to Hamilton Sundstrand/UTAS drawings, military, federal and industrial specifications. Approved manufacturers are listed in Hamilton Sundstrand's/UTAS's Report 80 under *"Fastener Manufacturers, High Strength"*. Fasteners manufactured by sources that are not UTAS approved will not be accepted.

All special processes and non-destructive testing performed per Hamilton Sundstrand, military, federal and industrial specifications shall be performed by Hamilton Sundstrand approved suppliers (HS/UTAS Report 80/85) or Nadcap accredited sources. If the special process supplier is not UTAS or Nadcap approved verification testing is required as specified herein.

Note: Verification testing is not applicable to UTAS Flight Safety Parts and HS FSCM 73030 designed standard parts, these HSFs must be processed using UTAS Report 80 & 85 suppliers.

The following Table 1 sampling plan shall be used when verification testing is performed on HSFs.

Table 1: HSFs Sampling Plan

Lot Size **From**	Lot Size **To**	Sample Size – Nondestructive Test 1.5 AQL (1.9 AOQL) (b)	Sample Size – Destructive Test (a) 1.5 AQL (1.9 AOQL)
2	8	8	4
9	15	8	4
16	25	8	4
26	50	8	4
51	90	8	4
91	150	12	4
151	280	19	4
281	500	21	4
501	1,200	27	4
1,201	3,200	36	4
3,201	10,000	38	4
10,001	35,000	46	4
35,001	150,000	56	4
150,001	500,000	64	4
500,001	greater	64	4

(a) The Destructive Samples may be taken from the Nondestructive sample after they have finished their nondestructive verification testing.

(b) Table 1 Sampling is not permitted for Magnetic Particle (MPI) or Fluorescent Penetrant (FPI) Inspection.

Table 2:Verification Testing Requirements On HSFs

Verification Testing of Required Special Processes By Suppliers Without HS or Nadcap Approvals

Special Process (c)	Fastener's Specifications (d)	Required
Certification Review (Traceability)	Dependent on HSF is Required for all restricted special processes	Yes
Verification Test Report, when required	Examples of Fastener's Specifications Requirements	Yes
Heat Treat - Core Hardness **OR** Ultimate Tensile Strength	ASTM E384 ASTM F606	Yes
Heat Treat - Carburization	ASTM F2328	Yes
Decarburization Thread Hardness	ASTM F835	Yes
Plating -- Thickness	NASM1312-12, ASTM B487	Yes
Plating -- Hydrogen Embrittlement Test (HET) (a)	ASTM F606 – Mandatory Test Method	Yes
Plating -- Corrosion Resistance	Specific Part Plating Specification	No
Passivation (b)	AMS2700 - Humidity Test	Yes
Thread Form	Specific Part Procurement Specification	Yes
NDT –MPI (e)	ASTM E1444	Yes
NDT –FPI (e)	ASTM E1417	Yes

(a) HET per ASTM F606 is mandatory if no HET specification appears on a plated HSF document or its tiers.

(b) Verification testing is to be performed per the passivation specification noted on the fastener's documentation.

(c) These verification tests are only required on processes that were not performed by UTAS approved or Nadcap accredited sources.

(d) The specs referenced in the Table are intended to be examples and not a comprehensive list. The applicable fastener specification or drawing shows the required testing documents.

(e) NDT inspections, including frequency shall be performed in accordance with the requirements specified for the fastener (drawing and procurement specification).

If Table 2 does not address a required restricted special process (e.g. dry film lube, peening etc.) the Supplier shall submit a SRI to UTAS for verification testing requirements.

All verification testing defined in Table – 2 shall be performed at a laboratory accredited by either Nadcap or signatories to the International Laboratory Accreditation Cooperation (ILAC). Accreditation shall cover the scope of testing performed.

HSFs must pass all the required verification testing to be used on UTAS product.

Verification testing failures need full lab reports including photographs to document the reason for failure. UTAS shall be notified in writing of any test failures.

When verification testing is performed, the supplier furnishing the HSF to UTAS either as a detail or part of an assembly is responsible for maintaining traceability to the original HSF manufacturer, part number and manufacturing lot.

Upon request electronic or hard copies of verification testing results shall be sent to the user of the HSF.

When verification testing is required, the instructions for completing the electronic source inspection record (iLot) are specified in the Materials and Processes Review section under “Fastener Manufacturers, High Strength”.

Appendix 3: What is a Change

Any change that may affect quality must be documented and communicated to UTAS via SRI prior to affectivity of the change. The below table is meant to provide guidance for the common types of changes that drive the need to create a FAI and/or require UTAS notification. If unsure, submit a SRI for UTAS direction.

Note: If Flight Safety or Frozen Process applies, the supplier must abide by any unique requirements.

Change	**Is a new or partial FAI required?**	**Is UTAS Notification Required?**
Ownership	No	Yes
Company Name	No	Yes
Management	No	Yes
Type of gage to inspect feature	No, if gage R&R has been performed on the new gage and is more accurate than, or equal to, the gage reported on the previous FAI Form 3. No, if the gage is less accurate than reported on the previous FAI Form 3 but meets the 10:1 accuracy requirement and <20% Gage R&R Gage Capability	No, unless the 10:1 accuracy requirement and <20% Gage R&R Gage Capability is not met
Inspection frequency	No, as long as requirements of ASQR-20.1 or AS13002 have been met.	No
Type of tool to create feature	Yes, if tooling change involves casting, molding, forging, etc. (tool "forms" the feature). Yes, if the tooling change involves a different process (conventional machining vs Electro Discharge Machining (EDM)). This is a process change and requires a Delta or Full FAI for affected dimensions. Yes, if tool geometry is different from that used to originally produce the characteristic. Examples of tool geometry changes are: end mill vs. drill, drill vs. reamer, tool length change, drill diameter change, ball nosed end mill diameter change Examples not considered a tool geometry change: 2 flute vs 3 flute mill cutter, carbide vs ceramic insert, coated tool vs uncoated tool	Yes

Change	**Is a new or partial FAI required?**	**Is UTAS Notification Required?**
Manufacturing sequence: addition or removal of operations of an existing process	Yes, if process step is value added (casting, forming, molding, machining, plating, coating, heat treating, marking, etc.). No, if value added sequence change was reviewed by Supplier Process Expert and Quality, and is documented on the process router or equivalent. Review must conclude that the sequence change did not affect a specific or related characteristic. Supplier Process Expert is the person responsible for designing/creating the manufacturing process. Quality is a member of the supplier's quality organization and should not be someone responsible for inspection. No, if process step is non-value added (inspection, data collection, etc.).	Yes, if process step is value added.
Special Process Supplier	Yes, changing special process suppliers is considered to be a change in the process.	Yes, if requesting an new source to be approved No, if the source is already approved on 80/85
Digital model used to produce or inspect the part	Yes, if digital model is being used as the authority data set for the configuration of the part. No, if digital model is only used as a manufacturing aid.	No
Change or move machining center	Yes, if not the same type/model machining center. Yes, if machining center is moved to a facility not under the Quality Management System (QMS) of the UTAS PO supplier. No, if machine accuracy/capability is known on both machines, the same manufacturing process is used to produce the part, and is located in a facility controlled by the UTAS PO supplier's QMS. (Note: Environmental considerations must be part of the accuracy/capability assessment). A capability/accuracy assessment must have been previously approved by UTAS or one can be submitted for approval via UTAS SRI process.	Yes

Change	**Is a new or partial FAI required?**	**Is UTAS Notification Required?**
Outsource work to sub-tier supplier	Yes, the process has changed used to produce the part.	Yes
New Manufacturing Location	Yes	Yes
Change/modify fixture used to produce part	Yes, fixtures used to produce a part are critical to the process.	Yes
Raw material distributor change	No, however raw material distributors shall meet the distributor requirements defined in ASQR-01.	No
A change in numerical control program or translation to another media	Yes, this is considered a change to the process used to produce the part.	Yes