Collins Aerospace

An **RTX** Business

Power & Controls
Global Operations

Delegated Quality Representative
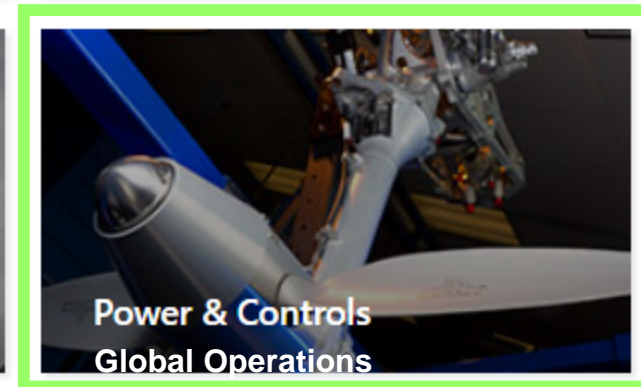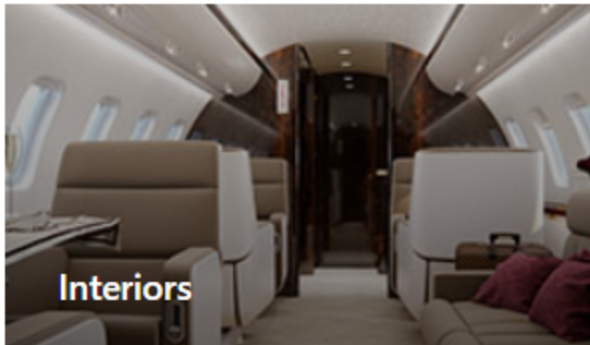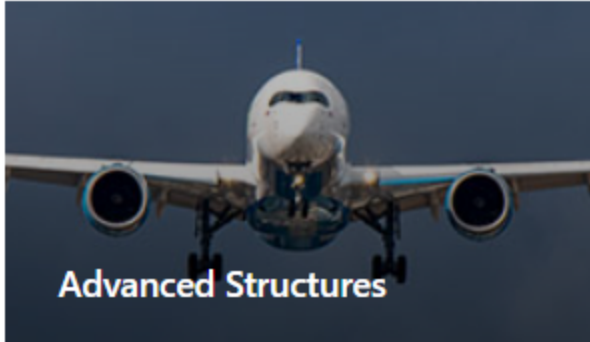
Review and Refresh # 3

QN & SRI

12/11/2024

COLLINS SBUs

Collins Aerospace Strategic Business Units (SBUs)

Advanced Structures

Avionics

Connected Aviation Solutions

Interiors

Mission Systems

Power & Controls
Global Operations

P&C AND GOPS SUPPLIER QUALITY

Organization Chart

Josh Mackey, MA
Supplier Quality

Gina Ferrera, CA
Technical Projects

| **Christine Foley, CT**
Associate Director
Compliance | **Ryan Moran, CT**
Senior Manager
Work Transfer | **Craig Fiermonte, MA**
Associate Director
Advanced Quality | **Emily Fitzko, MI**
Associate Director
Escape Management | **Mike Page, CA**
Associate Director
GOPS |

Supplier Quality Assurance Rep (SQAR)
- Supplier's quality compliance focal
- Conduct audits – QMS, ASQR, flight safety
- Release flight safety hardware shipments
- Work with DQRs
- Conduct training at supplier

DQR / Source Inspection / COPS
- DQR approval and Rectifications
- CQAR Oversite
- Supplier Source Inspection Application / Help Desk
- Flight Safety and KPC
- Source inspection (iLots)
- Flight Safety / ProCert database (COPS)

Supplier Response Center
Gatekeepers / Delegation owners for:
- Supplier Request for Information (SRI)
- V1 QNs (VMRR for Rome)
- Part Marking

FAI
- Supports Accenture team that reviews and approves supplier FAI submittals (as required by PO)
- Review and approve Casting FAIs

Processes / Work Transfer
- Owners for compliance processes
- Collins Managed Work transfer focals
- Supplier Managed Work transfer focals

Zero Defect Plan (ZDP)
- Regular, periodic engagement with their assigned suppliers to drive implementation of ZDP
- Execute both reactive and proactive elements of ZDP
- Review past escapes and corresponding RCCA for robustness and effectiveness
- Ensure robust Detection actions are in place to prevent future escapes
- Ensure read across complete for all actions to all applicable Collins PNs
- Lead manufacturing process reviews (MPRs)
- Review PFMEAs
- Drive process capability studies thru statistical FAIs

New Product Intro (NPI) / PPAP
- Certified PPAP MFP's (member focal points)
- Review and approve supplier submitted PPAP packages
- ASL and Sourcing board approvals
- Review and approve drawings

Supplier Quality Engineer (SQE)
- Lead Escape / RCCA investigations for their assigned suppliers
- Utilize QIMs to formally document Containment and RCCA from suppliers
- Determine validity and responsibility for suspect supplier issues - Disposition corresponding V2 QNs
- Collaborate with Operations Quality and Quality Clinics to identify and drive supplier improvements

Supplier Quality Engineer (SQE)
Same responsibilities as P&C group
Covers supplier issues for all Global Operations sites
- Poland
- Singapore
- Puerto Rico
- India

Special Process
- Subject matter experts for different types of special processes – coatings, heat treat, NDT
- Manage 80/85 reports – approved supplier list for special processes and castings
- Support P&C and GOPS as needed during investigations or improvement activity
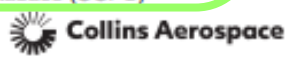
INTRODUCTIONS

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AGENDA

Introduction & Portal Navigation

- What is a DQR?
- Where are DQR requirements outlined?
- Portal Navigation: Forms & Documents, Help & Training
  - Supplier Alerts
  - DQR-related documents
  - Additional Training
  - Supplier Circulars
  - Help Desk/ SSI ticket
- Quick Links Overview
- Quick Links: Drawings & Specifications
- Quick Links: COPS Overview
- Quick Links: Quality Notification (QN)
- Quick Links: Supplier Request for Information (SRI)
- Quick Links: Part Identification Generator (PIG)

Product Documentation Review

- Special Processes
  - 80/85 Report
  - 80/85 Report definitions
  - HSM17 Table 1 Applicability
- Documentation Review Requirements
  - Minimum Documentation for Source Inspection
  - Revision Review
  - FAIR Review
  - Part Marking
  - Work orders/ Inspection Reports
  - Certifications
  - Sampling/ Frozen Processes

Inspection Lots (I-lot)

- Create Inspection Lot
- Record Results
- Usage Decision
- General Operations
  - Down Counting
  - Searching iLots
  - Cancelling iLots
  - Printing CofC
- Conclusion
  - Housekeeping
  - What's Next?

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SUPPLIER SOURCE INSPECTION TRAINING

- **A Delegated Quality Representative (DQR) is a supplier representative (employee) approved by Collins to perform Source Inspection and related duties. When a DQR is performing source inspection, they are doing so on behalf of Collins and shall act in the best interest of Collins. Reference HSM17.**

- DQR responsibilities include:
  - Performing Supplier Source Inspection (SSI), creation of iLot's and releasing product
  - Understanding and compliance with Collins Aerospace requirements
    - Example: Drawings, Specifications, Purchase Orders
  - Recognizing items that affect Collins products and processes
    - Example: Audits, Quality Notifications, Supplier Circulars
  - Navigation knowledge of the Supplier Portal
  - Reporting any (integrity) concerns to their Collins SQAR

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DQR TRAINING LOCATION

The full DQR training video, PDF companion, and HSM17 are located on the Supplier Portal:

Help & Training-> Forms & Documents-> Supplier Portal Training Documents Page-> Power & Controls Standard Work-> DQR Certification (Supplier Source Inspection page)

https://suppliers.utc.com/SPPortal/Pages/QualitySSI

Supplier Source Inspection

Quality Supplier Source Inspection

Supplier Source Inspections ensure that all manufactured and assembled product meets or exceeds all purchase order, drawing, and specification requirements. Product shipped from suppliers goes directly to assembly within the Collins manufacturing cell or directly to the customer from the Collins facility. It is critical that the DQR, who acts as a representative of Collins during inspections, ensures product is inspected and meets or exceeds the standards.

DQR Process

Collins initiated the Designated Quality Representative (DQR) program in 2003. The DQR program enables a Collins-approved supplier representative to perform over inspection activities and release product shipments on behalf of Collins. Suppliers shall use the DQR process for all shipments of Collins product to Collins facilities or to drop ship product to Collins customers.

New DQRs:

New DQR candidates must submit a form 7 (DQR Candidate Application) to their Collins SQAR for approval. Upon acceptance, the DQR candidate can proceed with the additional requirements found in the "Steps to Become a DQR" link below. DQR Forms can be found in the "DQR Forms and Training" section below. If there are questions or uncertainty about your assigned SQAR please contact DQRCertification@collins.com

- Steps To Become a DQR

DQR Re-Certification:

Existing DQRs are required to recertify every three years, in alignment with their AS13001 expiration date. Failure to do so will result in permissions being removed. DQR re-certification requirements are outlined in the "DQR Re-certification Process" link below. Re-certifications packages should be sent to DQRCertification@collins.com; and copy your Collins SQAR on the submission. Questions can be sent to DQRCertification@collins.com and/or to your Collins SQAR.

- DQR Re-certification Process

DQR Email Address Changes/ Removals:

Please notify your Collins SQAR and Collins Supplier Quality at DQRCertification@collins.com of any DQR changes in email addresses or if you will no longer be performing DQR responsibilities.

DQR Forms and Training:

- Form 7 DQR Candidate Application
- Form 8 DQR Letter of Agreement (LOA)
- DQR Training Video
- DQR Training (PDF only)
- DQR Collins Quiz
- DQR Collins Quiz QR Code
- Optional Inspection Lot Checklist for DQRs and CQARs

SSI Training

SSI Training is found on the new Supplier Potal Training page. You can access the page here.

Supplier Circulars

Supplier circulars cover items of interest, interpretation of drawings and specifications as well as clarification of procedures. In addition, they bring attention to examples of problems encountered by suppliers and present their solutions for possible application to other suppliers. Click the title to view the full library of circulars.

Quality Forms and Documents

- HSM17 (Supplier Quality Requirements)
    - Master DQR Checklist Rev J
    - Digital Product Definition Training
    - HSF-0302.04 (Product and Process Validation Statistical Control Toolbox)
    - Supplier to Supplier Shipment Instructions
        - COL-FRM-34 (Final Product Review and Acceptance Record)
- HSM18 (Boeing Drop Ship)
- HSM19 (Counterfeit Avoidance and Traceability)
- HSM236 (FAI Requirements)
    - AS9102 Rev C Forms
    - QC-1700.00 FAI Report Review Checklist
- HSC16199 (Critical to Quality Characteristics)
    - KPC Management Form 0996
    - Supplier Self-Selected KPC Summary Sheet HSF 5138
    - Safety Part Training (Flight Safety)
    - Sub-tier Safety Part Training
    - CTQ Non-Safety Training
- CEP100 (Configuration Management Requirements)
- Engineering Changes:
    - EC Disposition Codes
    - HSF-2513.91 (Supplier/Subcontractor Engineering Change Request)
    - Engineering Change Justification Form
- MISH List
- COL-FRM-0087 (Quality Control Action Requirements)
- QN Template
- HSF5105 (Frozen Process-Non HSC16199 Approval Form)

Alternate Specification References

- 69100-1: Alternate Parts Listing
- 69100-2: Alternate Materials Listing
- 69100-3: Alternate Processes Listing
- 69100-4: Vendor/Name Substitutions
- PN02.01-06: Alternate Specifications List

Portal Navigation: Quick links
Quality Notifications (QN)

SUPPLIER SOURCE INSPECTION TRAINING

PORTAL NAVIGATION-QUICK LINKS-QUALITY NOTIFICATION

- A QN is an indication that certain actions and reviews need to take place regarding a part defect prior to a supplier shipping product.

- A QN contains detailed information about the defect, such as defect code types that describe the nature of the defect, as well as an attachment template in which the supplier provides further details.

- To create or view QNs for your vendor code, select "Quality Notification" from Quick Links.

- To access the QN attachment template, required for QN submission, navigate to *Help & Training->Forms & Documents->Supplier Source Inspection*

SUPPLIER SOURCE INSPECTION TRAINING

- Instructions for QN creation, how to view open and closed QNs, and supplier requirements for submitting QNs can be found on the supplier portal: *Forms & Documents-> Supplier Portal Training Documents->Power & Controls Standard Work*

- If there are product nonconformances on QN, the DQR shall add this feature to their over-inspection characteristics. The nonconformance will be listed in the quality notes and a copy of the QN is to be included in the data package and listed on the packing slip.

- Questions/ concerns regarding the QN process can be directed to hscad@hs.utc.com

Power & Controls Standard Work
- DQR Quiz
- DQR Quiz QR Code
- DQR Training
- DQR Certification
- How Do I Submit a Quality Notification?
- Create and Review Quality Notifications
- What is SRI (Supplier Request for Information)?
- Supplier Request for Information (SRI)
- Part Marking Approval Process and Reference Guide (PIG)
- Supplier Source Inspection Lot

Control of Process and Safety (COPS)
- Producer COPS FSC and CTQP Instructions
- Producer COPS CTSC and CTQC Instructions
- Producer COPS KPC1 and KPC2 Instructions
- Producer COPS Instructions Overview

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V1 QN APPLICABILITY

Do's ✅

Don't ❌

- Issue is detected by a supplier (unplanned departures)
- Parts are completed or in WIP
- Engineering Bridge disposition can be used when CR is created that addresses non-conformance
- Spec and Actuals shall define the nonconforming condition for each defect

- Items that can be re-worked with minimal risk should not be submitted on QN (FS parts excluded)
- Planned departures from print cannot be submitted on QN (i.e., capability issues)

Non-Conformance

Non-Compliance

- If the Corrective Action indicates a Collins drawing change is required, SRI# must be provided
- QN can be placed on hold due to missing or lack of Cause/ Corrective Action
- Disposition of QNs are based on technical considerations- not influenced by cost/ schedule

- QNs cannot be used for drawing revision issues or Qualified Distributor List issues
- QN's reporting non-compliance to HSM17 or the 80/85 Report must include material/special process certifications.

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Portal Navigation: Quick links

Supplier Request for Information (SRI)

SRI Instruction Review

Submitting an SRI, Viewing an SRI response, Resubmitting an SRI, and Types of Submissions.

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SUPPLIER SOURCE INSPECTION TRAINING

- The Supplier Request for Information (SRI) form is used as a means of formal, documented communication between Collins and its suppliers.

- To create or view SRIs, select "Supplier Request for Information" from Quick Links.

QUICK LINKS

SNC LINKS:
- Advanced Ship Notifications
- Alert Monitor
- Delivery Control Monitor
- Download Center (Forecast, Due List)
- Forecast Collaboration
- Pick List/Delivery Due List
- PO Collaboration
- Quality Notifications
- SA Collaboration
- SMI Details
- Source Inspection

OTHER APPLICATIONS/REPORTS:
- Actuation Quality Index/Drawings
- Buffer Stock
- Move IT
- Control of Process and Safety (COPS)
- Kanban Forecast Report
- Materiel
- OTD Details
- Part Identification Generator
- PLM Engineering Information
- Net Inspect
- Scorecard
- Supplier Audits (ETQ Reliance Aerospace)
- Supplier Confirmations
- Supplier Performance Dashboard
- Supplier Request for Information
- UII Generator For ASN
- VMI Report
- Transportation Management System (TMS)

SUPPLIER SOURCE INSPECTION TRAINING

- Instructions for SRI creation, how to view open and closed SRIs, and supplier requirements for submitting SRIs can be found on the supplier portal:

  ➢ *Forms & Documents->*

  ➢ *Supplier Portal Training Documents->*

  ➢ *Power & Controls Standard Work ->*

  ➢ *Supplier Request for Information*

- Questions/concerns regarding the SRI process can be directed to hssri@collins.com

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SUPPLIER SOURCE INSPECTION TRAINING

SRI's are submitted to request information from Collins, such as:

- Engineering Change Justification Form – Used for Supplier Convenience (form found on Portal)

  - Note: Supplier Circular #180 defines this process.

- Tooling Requests

- HS14612 and HS14602 Frozen Process Changes – Form HSF-5105 is found on the Supplier Portal

- Supplier Process Change Notification – ASQR-01 Form 2

- Supplier Managed Work Transition – ASQR-01 Form 4

- Quality Waiver – Compliance Gap Analysis – ASQR-01 Form 5

- Notification of Potential Quality Escape – ASQR-01 Form 6

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SUPPLIER SOURCE INSPECTION TRAINING

SRI's **<u>Cannot</u>** be submitted to request information from Collins, such as:

- Altering contractual agreements

- Constitute documents such as Waivers, Deviations, Engineering change approvals

- Flight Safety Board approvals, or other requirement flow downs

- Distributor Requests – Form 9

To re-iterate, an SRI, also known as an electronic version of ASQR-01 Form 3, is a tool that Collins uses as a formal means of communication.

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COMMON TURNBACKS: QN & SRI

Quality Notifications (QN)

- Missing template
- Template not filled out correctly
- Contact information missing
- Poor or no cause and corrective action statement
- Condition not supported using a QN
- Missing photos or certifications
- Reworkable condition
- Parts shipped or not yet manufactured (not a QN condition)

Supplier Request for Information (SRI)

- Request not clear/lack of detail
- Condition not supported using SRI
- Missing required forms/attachments
- Not supported by Power & Controls
- Not all part numbers are covered
- Indicating priority without proper justification

SRI Support: hssri@collins.com
QN Support: hscad@collins.com

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QUESTIONS?

BACKUP

SUPPLIER SOURCE INSPECTION TRAINING

If an operation exists for QN validation, this an indication that the part has been identified as having a nonconformance. Subsequent lots require 100% inspection to validate part is compliant. Review the Long Text for details. By selecting "Pass" the DQR is confirming that 100% inspection is complete, and part(s) conform.

Operations

	Operation	Description	Status
	0001	GENERIC	Closed
	0002	-21	Open
	9990	Valid Quality Notification	Open

Characteristics

Characteristic	Description	Long Text	UoM	Accept	Reject	Lower Limit	Upper Limit	Results	In
0010	QN		EA						

Result Sets

RESULT
F	Fail
N/A	N/A
P	Pass

Characteristic Long Text

QN Exists See Long Text
Supplier Source Inspection Guidance
UTAS has identified a nonconformance on this part produced at a supplier facility, please complete the following:
1) Review QN Information text in the "Enter Quality Notes" in the iiot "Record Results" window for more information.
2) Ensure the product being shipped does not have this non-conformance.
3) DQR must verify 100% inspection on any deviated characteristics for a minimum of the next (3) three consecutive manufactured lots.
Reference HSM17 for more details

Any additional information may be added into the Quality Notes section. See QN Work Instructions for guidance on how to search & review QNs.

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SUPPLIER SOURCE INSPECTION TRAINING

- Instructions for SRI creation, how to view open and closed SRIs, and supplier requirements for submitting SRIs can be found on the supplier portal: *Forms & Documents-> Supplier Portal Training Documents->Power & Controls Standard Work -> Supplier Request for Information*

- **SRIs are not to be used for processing product nonconformance** SRIs alone cannot alter contractual agreements, nor do they constitute documents such as waivers, deviations, engineering change approvals, Flight Safety Board approvals, or other requirement flow downs. The SRI system is merely a means of documented communication between Collins and our supply base.

- Questions/concerns regarding the SRI process can be directed to hssri@collins.com

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SRI APPLICABILITY

✅ Do

- Print updates for cancelled, superseded specs
- Drawing and specification clarifications
- Supplier work transfers
- Tooling/Purchase Order requests
- Current and First Article concerns and comparisons
- Flowdown compliance concerns
- Frozen Processes
- Special process questions and inquiries
  - Adding to 80/85 list
  - Source controlled special process questions
- Manufacturing Part Number and Approved Supplier List updates

❌ Don't

- Disposition on material already nonconforming
- Qualified Distributor List approvals
- Supplier part numbers only without a connection to Collins part number

This is a legacy Hamilton Sundstrand tool

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