

Power & Controls Global Operations

Delegated Quality Representative

Review and Refresh #4

Control of Process and Safety (COPS)

January 15, 2025

COLLINS SBUs

Connected Aviation Solutions Advanced Structures Avionics **Mission Systems** Interiors Power & Controls **Global Operations**





P&C AND GOPS SUPPLIER QUALITY

Organization Chart

COPS



Josh Mackey, MA Supplier Quality

> Gina Ferrera, CA **Technical Projects**

Supplier Quality Engineer

Same responsibilities as P&C

Covers supplier issues for all

Global Operations sites

Poland

India

Singapore

Puerto Rico

(SQE)

group

٠



© 2022 Collins Aerospace. | Collins Aerospace Proprietary. | This document does not include any export controlled technical data.



Craig Fiermonte, MA Associate Director Advanced Quality

Zero Defect Plan (ZDP)

- Regular, periodic engagement with their assigned suppliers to drive implementation
- 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



Emily Fitzko, MI Associate Director Escape Management

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



Mike Page, CA Associate Director GOPS

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

Hannah Gonzalez

Senior Manager, Supplier Quality Compliance Mobile: +1 815 213 4017 hannah.gonzalez@collins.com



Catie Sheldon

Specialist, Quality Compliance Mobile: +1 959 929 2860 Catie.Sheldon@collins.com







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)
- Collins Aerospace

Product Documentation Review

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

Inspection Lots (I-lot)

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

SUPPLIER SOURCE INSPECTION TRAINING

INTRODUCTION - WHAT IS A DQR?

- 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



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 exceedes 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.

- Form 7 DQR Candidate Application

DQR Training Video

- · 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

DQR Forms and Training:

Form 8 DQR Letter of Agreement (LOA)

DQR Training (PDF only)

DQR Collins Quiz

DQR Collins Quiz QR Code

SUPPLIER SOURCE INSPECTION TRAINING

PORTAL NAVIGATION - QUICK LINKS OVERVIEW

NEWS	QUICK LINKS - ADMIN -	Traci Totten (Profile Log Out) Search SUPPL
	SNC LINKS	OTHER
	Accounts Payable	APPLICATIONS/REPORTS
2-2	Advanced Ship Notifications	Actuation Quality Index/Drawings
	Alert Monitor	Buffer Stock
	Delivery Control Monitor	Move IT
	Download Center (Forecast, Due List)	Control of Process and Safety (COPS)
1.1.1	Forecast Collaboration	Kanban Forecast Report
	Pick List/Deliverv Due List	Materiel
	PO Collaboration	OTD Details
	Quality Notifications	Part Identification Generator
	SA Collaboration	PLM Engineering Information
	OMI Deteile	Net Inspect
pectations		Scorecard
	Source Inspection	Supplier Confirmations
		Supplier Performance Dashboard
		Supplier Request for Information
REPORT	S:	UII Generator For ASN
d/Drawings		VMI Report
I Safety (C	OPS)	Transportation Management System (TMS)

Collins Aerospace
An RTX Business

PLEASE READ: Planned Outage Sunday 18th August	UPDATE: Homepage QUICK LINKS New Locations	SNC LINKS:	OTHER APPLICATIONS/REP
August 16, 2024 There is a planned outage scheduled for Sunday 18th August 1pm - 9pm EST. Users will be unable to carry out any transactions in the Supplier Portal during this time. If TMS enabled suppliers have product to ship, please ship outside of TMS during this time	August 07, 2024 The following Quick Links options have moved to the Forms & Documents page: 80 Report, 85 Report, QN Attachment Template, PO Note Codes, 80 Report – Space Only, 85 Report – Space Only. Please click "READ MORE" for additional information	Accounts Payable Advanced Ship Notifications Alert Monitor Delivery Control Monitor Download Center (Forecast, Due List) Forecast Collaboration	Actuation Quality Index/Drav Buffer Stock Move IT Control of Process and Safe Kanban Forecast Report Materiel OTD Details Part Identification Generator
UPDATE: Quality Notification Issue July 24, 2024 An issue has been identified with the QN process which is preventing suppliers successfully submitted their QNs. Until further notice, when using the QN application, be sure to leave the defect code blank. Please click Read More for further information.	REMINDER: Update from Collins Supplier Quality July 16, 2024 The new supplier Corrective Action process is LIVE. Collins Supplier Quality are rolling out a new and improved supplier corrective action process using a platform called EtQ Reliance. Please click Read More for important information on this change.	Pick Elsebelivery Due List PO Collaboration Quality Notifications SA Collaboration SMI Details Source Inspection	PLM Engineering Information Net Inspect Scorecard Supplier Confirmations Supplier Performance Dasht Supplier Request for Informa UII Generator For ASN VMI Report Transportation Management (TMS)

© 2024 Collins Aerospace. | Collins Aerospace Proprietary. | This document does not include any export controlled technical data.

SUPPLIER SOURCE INSPECTION TRAINING

COPS Database Access

(Control Of Processes and Safety)

Note: This module applies to Collins suppliers that produce Critical to Quality hardware per HSC16199

COPS must be launched in Microsoft Edge using IE compatibility mode: REF Supplier Circular 208



WHAT IS "CONTROL OF PROCESS & SAFETY"?

- The Control Of Process & Safety (COPS) database is the result of merging the Process Certification and Flight Safety databases.
- COPS is one of the many tools that Collins Aerospace employs to assure that our products meet or exceed our customer's expectations.
- HSC16199 Section D8.0 PROCESS CERTIFICATION DATABASE
 - The Control of Process and Safety (COPS) database or equivalent will be the means for entering, controlling and revising all Critical to Quality submittals.
- COPS involves the selection of critical to quality features on the Engineering drawing. There are three types of critical to quality features; those controlled by variation management techniques, those managed by frozen process techniques and those that require the producer to define their own sublevel features. These techniques have been proven to have a positive effect on form, fit, function, performance and service life.

3/19/2024



CHARACTERISTIC OVERVIEW



*A drawing can have a combination of any of the listed characteristics *A drawing can also be noted as safety part but have no characteristics

PRODUCER RESPONSIBILITIES

For characteristics controlled by variation management

•Create a site-specific control plan as applicable.

Process Capability

Gage Capability

•Initiate Statistical Process Control (SPC) data collection.

•Perform process improvement activities as required to

achieve process capability requirements.

Input SPC data for each manufactured lot into COPS

•KPC1- 100% inspected

•KPC2- Sampling may be done per ASQR 20.1 once requirements in sections 4.1 and 4.2 or HSC16199 are met

•Submit KPC Management forms with corresponding improvement plan when needed- Example: Gage R&R or Capability are not met •DQR to validate SPC data is submitted to the COPS database for the inspection lot being completed

For characteristics controlled by frozen process

•Submit manufacturing documentation to UTAS for approval per requirements in HSC16199

•Freeze approved manufacturing documentation (no changes without prior approval)

•Ensure that all parts are manufactured in strict accordance with frozen processes

•DQR to validate applicable COPS characteristics are approved and the parts were manufactured to the approved processes/ plans

For supplier-defined characteristics

•Submit supplier-defined characteristics to UTAS for approval (HSF5138- Supplier Self-Selected KPC Summary Sheet)

•Incorporate approved supplier-defined characteristics into supplier engineering documents

•Control supplier-defined characteristics in accordance with supplier's internal procedures and systems

•DQR to validate applicable COPS characteristics have been approved and self-selected characteristics are being maintained by the supplier. If frozen planning is selected the DQR must validate that the parts were manufactured to the approved process



Method of Control	Safety	Non-Safety
Variation Management	KPC1	KPC2
Frozen Process	FSC (★)	CTQP
Supplier Defined	CTSC	CTQC

COPS TRAINING AND FORMS

Additional reference materials for COPS can be found on the supplier portal through the Power and Controls Supplier Quality links

- Gaining access to the database
 - If COPS access is granted the Control of Process and Safety link will appear in the user's quick links within the supplier portal
- Launching the database
- Navigating the database
- Entering Characteristic Requirements
- HSF5138 form
- KPC management form
- Supplemental Safety and Non-Safety Training

If there are questions or additional training requested, please contact GPUTASCOPS@collins.com for COPS support

Power & Controls and Global Operations

Formerly Electric, Environmental & Engine Systems (EEES) (previo

Shipping and Routing Guides

- Carrier Contacts Operations and AES Filing
- · Hamilton Sundstrand Ocean Container Security Process
- Collins Paid Routing Guide
- Authorization to Ship Premium Freight
- Premium Freight Supplier Notice
- Purchasing Transportation Account Numbers
- FedEx SameDay and Saturday PR Service
- SDS Consolidation Standard Work
- FedEx CPA Transition Letter to Suppliers
- FedEx CPA Transition Work Instructions
- International Heavyweight Air Transportation Routing Update
- Global Small Parcel Transportation Redting Update

Supplier Quality

- DQR Certification
- QNs: Quality Notifications
- SRI: Supplier Request for Information
- COPS: Control of Process and Safety
- Quality Specifications & Forms (COL-ASQR-PRO 0003,HSM17, FORM 34, ect.)
- Supplier Circulars
- MISH List
- ASQR Documents (RTX)
- · Power Transmission Systems (Rome NY)
 - QC869 PTS Vendor Request for Material Review Action (VRMRA)
- Power and Transmission Systems (Poland, Wroclaw)
 - INSTRUKCJA NR 11-15

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 B 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

Control of Process and Safety

The Control Of Process & Safety (COPS) database is the result of merging the Process Certification and Flight Safety databases. COPS is one of the many tools that our company employs to assure that our products meet or exceed our customer's expectations. COPS involves the selection of critical to quality features on the Engineering drawing. There are three types of critical to quality features; those controlled by variation management techniques, those managed by frozen process techniques and those that require the producer to define their own sub-level features. These techniques have been proven to have a positive effect on form, fit, function, performance and service life.

Questions/concerns regarding the COPS process can be directed to GPUTASCOPS@Collins.com.

The instructions below will provide assistance for users to be able to navigate and enter data into the Control of Process & Safety database.



COPS DATABASE ACCESS

Step 1: Select COPS from Quick Links

QUICK LINKS - ADMIN -	Paul Lipert (Profile Log Out) SUPPLIE Search POR TAL							
SNC LINKS	OTHER							
Advanced Ship Notifications								
Alert Monitor	80 Report							
Delivery Control Monitor	85 Report							
Download Center (Forecast, Due List)	Actuation Quality Index/Drawings							
Pick List/Dolivory Duo List	Buffer Stock							
Pick List/Delivery Due List	Move IT							
PO Collaboration	Control of Process and Safety (COPS)							
Our standard and a st								

If the COPS link is not visible the user can request access from their designated Supplier Portal Admin or contact GPUTASCOPS@hs.utc.com. Step 3: Select "Launch COPS in a new window"



The COPS Database must be launched in IE compatibility mode using Microsoft Edge. If the below message is received select the IE icon in the top right corner of the Edge browser window to launch the database. The database will launch in a separate window. If you do not have this icon click the three ellipses and select "Reload in Internet Explorer Mode"



Step 2: Enter Vendor Code

1	Pick a Vendor Code	×	mat
[Choose an option	*	
	hamilton sun	Q,	
	VC4029 - HAMILTON SUNDSTRAND	Å	h in w

This will only be applicable if the user has portal access to multiple company vendor codes



If the problem persists please contact gputascops@collins.com.



COPS SUMMARY SCREEN FIELDS

This is the COPS home screen or characteristic grid. It provides a listing of All the CTQ/CTS features (FSC, KPC1, KPC2, CTQC, CTSC, CTQP & TKC) assigned to the producer.

Chara	cteristic	Producer Data	KPC Mgmt F	orm Ga	ge Data	Process Data	a						
							[Online SPC	Data Entry	Offli	ne SPC Data Entry	SPC Data	a History
Select By	Document #	t Char #	Loc	cation	Description	Char Type	Control Plan/Frozen	Control Plan/Frozen	Milestone Status	Last SPC/Approval	Producer	9201 Number	Sort Remove Filte
🗿 Doc	(1)	2	Sheet	Location	(4)	(5)	Proces	Process Status	(7)	Date	9	(10)	Filter
🔵 Char						Sele ▼		Sele	Select- 🔻	<mark>∕</mark> ŏ⁄⊒≣			
	852014	13626	1	A1	1 +/02 dia	KPC1	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13627	2	B2	16 microfinish	KPC2	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13628	1	Note 1	240 Torque	FSC	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13629	1	Note 10	Heat treat	СТQР	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13630	1	Note 2	Flow rate	CTSC	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13631	1	Note 20	Cleanliness	СТQС	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13632	1	C3	2 + .02 /00	ТКС	View/Edit				696969 - Mikey's Machin e Shop		

- 1. **Document #** the document (drawing or specification) where the CTQ/CTS symbol is displayed.
- 2. Char # a computer generated number which uniquely identifies the CTQ/CTS feature.
- 3. Location
 - Sheet the sheet of the drawing or the page in the specification where the CTQ/CTS symbol is located.
 - Location the zone/paragraph within the sheet where the CTQ/CTS symbol is located.
- 4. Description a brief description of the CTQ feature.
- 5. Char Type a code which specifies the type of CTQ/CTS feature (FSC, KPC1, KPC2, CTQC, CTSC, CTQP or TKC).
- 6. Control Plan/Frozen Process Status indicates status of Control Plan/Frozen Process for a CTQ/CTS feature.
- 7. Milestone Status the highest milestone requirements the CTQ/CTS feature has satisfied.
- 8. Last SPC/Frozen Process Approval Date indicates the last SPC data submittal/Frozen Process Approval date.
- 9. **Producer** identifies the producer or internal manufacturing site that is producing the relevant CTQ/CTS feature.
- 10. 9201 Number allows foreign nationals to view the characteristic



BASIC OVERVIEW

1												(5)
	naracteristic	Producer Data	KPC Mgmt I	Form G	age Data	Process Da	ata						
1 <u>2</u>	<u>8 Next> Last>></u>	(2)						Online SPC	Data Entry	Offli	ne SPC Data Entry	SPC Data	a History
Sele B	ct Document #	Char #	Lo	cation	Description	Char Type	Control Plan/Frozen	Control Plan/Froze	ilestone Status	Last SPC/Approval	4 oducer	9201 Number	Sort
٥r	oc		Sheet	Location			Proes	Process Status		Date			Remove Filte
			Sheer	Location			6						Filter
O C	har					Sele 🔻		Select 🔻	Select- 🔻			(8	
	852014	13632	1	C3	2 + .02 /00	ткс	View/Edit				696969 - Mikey's Machin e Shop	U	
	852014	13631	1	Note 20	Cleanliness	стос	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13630	1	Note 2	Flow rate	CTSC	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13629	1	Note 10	Heat treat	СТQР	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13628	1	Note 1	240 Torque	FSC	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13627	2	B2	16 microfinish	KPC2	View/Edit				696969 - Mikey's Machin e Shop		
	852014	13626	1	A1	1 +/02 dia	KPC1	View/Edit				696969 - Mikey's Machin e Shop		
	4445559	12794	1	G6	Test attachment	CTSC	View/Edit		1		696969 - Mikey's Machin e Shop		
	4445559	12792	1	Note 1	Test for report	FSC	View/Edit				696969 - Mikey's Machin e Shop		
E	7559	12578	1	A1	10 +/- 5 QC-098 5.4 Example	KPC2	View/Edit	COMPLETE	3	06/12/2014	696969 - Mikey's Machin e Shop		

- 1. Screen Navigation Tabs click on these tabs from any screen and you will be returned to the selected screen.
- 2. Page Navigator numbers indicate more characteristics for a producer reside on other pages (10 line items per page).
- 3. Online SPC Data Entry this link opens a screen for real time SPC data input.
- 4. Offline SPC Data Entry this link opens a screen that creates an MS Excel spreadsheet template for off-line data entry.
- 5. SPC Data History view and edit SPC data previously entered.
- 6. View/Edit allows updates to the Site-Specific Control Plan/Frozen Process/supplier-designed characteristics and viewing of the Primary Control plan and Milestone Status screen.
- 7. Check Box indicates the Site-Specific plan is complete and SPC data may be input for that CTQ characteristic. This is also used to select a KPC when reviewing SPC data history.
- 8. Sort/Filter- allows the characteristics to be sorted or filter by any specific column criteria.



SEARCHING THE DATABASE

Contr	ol of Process and	Safety (COPS)											Date:	January 9, 2025
Catie She	don(EXTERNAL)											<u>Admi</u>	<u>n</u> Home <u>H</u>	<u>ielp Loqout</u>
Chara	cteristic Produc	er Data KPC Mgn	nt Form Gag	ge Data Proce	ess Data									
1 <u>2</u> 34	2 3 4 Next> Last>> Online SPC Data Entry Offline SPC Data Entry SPC Data History													
Select	Document #	Char #	Loc	ation	Description	Char Type	Control	Control Plan/Frozen	Milestone	Last SPC/Approval	Producer	Export	Comments	Sort
ву							Plan/Frozen Process	Process Status	Status	Date		Number		Remove Filter
• Doc			Sheet	Location										Filter
🔍 Char	123456					Select· 🗸		Select 🗸	Select 🗸					
	4445559	7845	1	Note 4	Test CTQC	СТQС	View/Edit	Approved	4	04/20/2011	696969 - Mikey's Machine Shop (test)		View/Add	
	852014	13631	1	Note 20	Cleanliness	СТQС	View/Edit	Draft	4		696969 - Mikey's Machine Shop (test)		View/Add	
	2102015	14832	1	Note 13	2102015 CTQC	CTQC	View/Edit	Submitted	3		696969 - Mikey's Machine Shop (test)		View/Add	
	123456	22687	1	G4	Hannah CTQC	CTQC	View/Edit]			696969 - Mikey's Machine Shop		View/Add	

- 1. Enter the base PN into the document field
- 2. Click to "Filter" button (do not press enter)
- Only Results for that part number will be returned
- You can then Filter on other columns as needed



HOW TO CHECK STATUS FSC/CTQP

Document #	Char #	Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Location		Description	Char Type	Control Plan/Frozen Process	Control Plan/Frozen Process Status	Milestone Status	Last SPC/ Approval Date	Producer
		Sheet Location																																																						
123456					FSC 🗸		Select 🗸	Select 🗸																																																
123456	22682	1 G4		Example FSC	FSC	View/Edit	Submitted		01/10/2025	696969 - Mikey's Machine Shop (test)																																														

This FSC is currently **Submitted** with a previous submission being approved on 1/10/2025 Select "View Edit" to see the document revision details

						Frozen Process	Status: Submitted					
												Vi
-	Manufacturing Doc Id	Producer Document Type	Producer Code	Producer Name	Submittal Date	Approval Date	Indicate Changes From Previous Revision	Frozen Rev	Attachment File Name	Status	View	Delete
	TEST	Operation sheet			05/07/2024	01/10/2025	SPG TEST	А	MTESTPD 454 19RA.docx	Approved	View	
	Test 2	Operation sheet			01/10/2025			в	MTest 2PD 45 667RB.docx	Inprogress A dd	View	
	F: PSC	SC-22682 C: Example FSC										
			Manufa	cturing Docum	ent Id#		Status					
				TEST			Approved					
				Test 2			Inprogress Add					

Revision A of the operation sheet is approved, Rev B is still pending approval. No parts should be manufactured to revision B until Collins approval is received. If the parts being inspected where made using revision A, they meet the approval requirement.



HOW TO CHECK STATUS KPC1/KPC2

								Online S	SPC Data Entry	/		Offline SPC Data Entry		SPC Data Hi	story
Select By	Document #	Char #	Loc	ation	Description	Char Type	Control Plan/Frozen Process	Control Plan/Frozen Process Status	Milestone Status	Last SPC/Ap Date	oproval :	Producer	Export Authorization Number	Comments	5 Sort Remove Filter
• Doc			Sheet	Location											Filter
🔍 Char	123456					крса 🗸		Select 🗸	Select 🗸						
	123456	22680	1	G4	.490 +/0005	KPC2	View/Edit	COMPLETE		01/10/2	025	696969 - Mikey's Machine Sho p (test)		View/Add	

The control plan for this KPC is complete and the SPC data was last entered 1/10/2025. To view the SPC data and ensure that the current lot information is loaded, click the selection box next to the document number and then SPC Data History

Ī	Document	K	PC No	КРС Т	уре	KPCDes	scription	Tolei	rance Type	Lo Tole	ower erance	Upper	Tolerance	Nominal	ProducerID
	123456	2	2680	KPC	2	.490 +	-/0005		BIDIR		.005		.005	.490	696969
						-	-		-				-	-	-
	Submittal	Date	Lot	No.	F	Part #	Inspection	Qty	Mean		Std. D)ev.	Cpk	SPC Data	Remove Filter
l															Filter
	01/10/20)25	112	255	1	2356-1	52.000000	0	.49		.00	1	1.667	View/Edit	Delete

In the SPC data history you will be able to see the lot number and quantity to ensure data has been entered for the parts you are inspecting.



HOW TO CHECK STATUS CTSC/CTQC

Document #	Char #	Location		Description	Char Type	Control Plan/Frozen Process	Control Plan/Frozen Process Status	Milestone Status	Last SPC/ Approval Date	Producer	
-		Sheet	Location								
r 852014					стъс 🗸		Select 🗸	Select 🗸		696969	
852014	13630	1	Note 2	Flow rate	CTSC	View/Edit	Draft	1		696969 - Mikey's Machine Shop (test)	

This CTSC is currently in **Draft** with a no previous approvals on 1/10/2025 Select "View Edit" to see the document revision details

				Document Informa	ation	🧔 🗄 https:// utasdotnet.utc.com /cops/ControlPlanInput/ManageSDCDocument 🔍
Document N	umber	852014	Document Revision	* Producer Informa	tion	You're in Internet Explorer mode. Most p Open in Microsoft Edge Learn more X
Producer Co Country	de	696969 USA	Producer Name Contact Name	Mikey's Machine Shop (test) Louis Krzeminski		Upload Documents Browse Upload File could not exceed the size of SMb.
Addressi		Mikey's Place	Add Producer	Delete		Documents
	0 Unique Idea	ntifier:		Jurisdiction and Class	ification	Document Name UploadedBy Date Uploaded View Test Part.pdf krzemil 6/1/2015 2:25:04 P View M HSF-5138 Test.xlax E40009962 1/10/2025 3:37:16 View View
CTSC Number		13630	CTSC Description	Key Characterist	View Summary Docu : ics	
Doc#	Doc Rev	Product/Flight Safety Characteristics	Rationale For Key Product / Fight Safety Characteristic Section	Method of Control	Servi	
VD 12	A	dia	size contributes to flow rate	Statistical Process Control	✓ Service & Ma	
VD 21	*	length 0		Statistical Process Control	V Service & Ma	
VS E5	V	surface finish 0		C Frazen Process Control	V Service & Ma	
<						Add FSC Documents Add Row Documents

The Key Characteristic table should list the self-selected controls and the control documents

If you select "Documents" you will see the approved documents related to the key characteristics. This should include the HSF51-38 and frozen manufacturing documents.

Approved documents will have the FPRB stamp with the date reviewed, you can review by clicking "view" next to the document



COPS STATUS DEFINITIONS

Characteristic Type	Action Owner	Status Category	Definition
	Supplier	Blank	No action has been taken in COPS
KPC1 and KPC2	Supplier	Incomplete	Action is with the supplier to either complete their control plan or first lot of SPC data
	Collins/ Supplier	Complete	Suppliers control plan has been entered and their first lot of SPC data entered. It is the supplier's responsibility to continue to submit their SPC data as required.
		Blank	No action has been taken in COPS
		In Process	Supplier has started to make updates to a first-time characteristic submittal
	Supplier	Draft	Supplier has opened/ began editing a previously approved characteristic to make updates
CTSC, CTQC, FSC, CTOP		Rework	Collins has reviewed the supplier's submittal and sent back for updates or changes. Rework comments can be reviewed by the supplier in COPS
	Collins	Submitted	The supplier's Frozen planning and/or self selections are with Collins for Review. Review process may vary depending on characteristic type and business unit
	Supplier	Approved	The supplier's submission has been reviewed and approved by the applicable board. It is the supplier's responsibility to update and resubmit if any changes are made to the approved documentation based on the frozen process requirement. Revision letters of approved documents must be verified prior to shipment to ensure alignment



DQR RESPONSIBILITY FOR CRITICAL TO QUALITY HARDWARE

Per HSM 17:

5.6.4 Flight Safety Hardware

3. DQRs shall validate in the COPS database that:

a. For Class 1 Parts:

- Identified frozen processes for Flight Safety Characteristics (FSCs) have been approved by Collins and parts were produced to the approved revisions.
- For KPC1s, SPC data is to be recorded 100% within the COPS database (or equivalent).

b. For Class 3 Parts:

- Identified frozen processes for Critical to Safety Characteristics (CTSC) have been approved by Collins and parts were produced to the approved revisions.
- Current HSF-5138 have been approved by Collins.
- SPC Records for self-selected KPCs are being maintained and are available if requested.

5.6.5 Critical to Quality Hardware

2. DQRs shall validate in the COPS database that:

a. For Class 1 Parts

- Identified frozen processes for Critical to Quality Process (CTQP) have been approved by Collins and parts were produced to the approved revisions.
- For KPC2s, SPC data is to be 100% recorded into the COPS database (or equivalent). Suppliers may move to a sampling plan, per ASQR-20.1, once the requirements of HSC16199 section 4.1 or 4.2 are met and KPC is statistically capable (minimum Cpk = 1.33).
- b. For Class 3 Parts
 - Current HSF-5138 for Critical to Quality Characteristics (CTQC) have been approved by Collins.
 - SPC Records for self-selected KPCs are being maintained and are available if requested.



- As part of the inspection plan for safety parts an inspection operation will be loaded into your iLot to verify the requirements of HSC16199 have been met.
- All Critical to Quality parts should have a Quality note present, example below.
- If you do not see an inspection step or quality notes, please enter a supplier portal help desk ticket or contact your SQAR

0010 FSP	Х		P Pass
----------	---	--	--------

🔄 Quality Inf	로 Quality Information Dashboard						
9.274.5.2.5.2.6.							
Language	Long Text						
EN	SPECIAL REQUIREMENT						
EN	This part is identified with Critical to Quality Characteristics (CTQC).						
EN	The B/P contains Product Characteristics that are identified by the CTQC						
EN	symbol.						
EN	Inspection and / or Process Control requirements for these						
EN	characteristics are defined in HSC 16199 and reside in the COPS						
EN	database.						

FAQ

Q: IE compatibility mode is not working, who do I contact?

A: Send an email to <u>GPUTASCOPS@collins.com</u> or put in a help desk ticket, be sure to include any error messages you are receiving.

Q: When will COPS work in Chrome and Edge?

A: We do not currently have and estimated completion date. Testing is currently in development to move the database to ensure functionality is not lost.

Q: I do not see my PN in COPS, who do I contact?

A: GPUTASCOPS@collins.com

Q: The characteristic (FSC/CTQP/CTQC/CTSC) in COPS is not approved, what are the next steps?

A: If the status is in draft or submitted, check if the parts were manufactured to the previous approved revision in COPS. If they were manufactured to an existing approved revision this is OK. If this is a first-time submission or the parts were manufactured to an unapproved document revision do not complete the iLot and work with your QM and Collins SQAR to resolve.

Q: The database will not allow me to select a KPC for SPC data entry, what am I missing?

A: Verify if your control plan is complete, ensure your sample size and chart type is selected as part of your process data entry.

Q: For an FSC or CTSC how do I confirm a revised document needs Collins FPRB approval?

A: Verify if the manufacturing documentation is completely or selectively frozen. If there is no statement which designates selectively frozen, any changes to the frozen documentation must be submitted to Collins for approval. If the document is selectively frozen any changes affecting the clearly specified frozen operation revisions must be submitted to Collins for approval.

Q: I can not verify Collins FPRB approval on the manufacturing documents, who should I contact?

A: Your Collins SQAR

Q: The SPC data is submitted but the gage or CpK requirement is not being met

A: Work with your internal organization to submit a KPC Management form per HSC16199

Q: The inspection tool used for a KPC changed, does COPS need to be updated?

A: Yes, the control plan in COPS for a KPC should be updated to capture any changes to the inspection plan or verification process.



QUESTIONS?



© 2023 Collins Aerospace. | Collins Aerospace Proprietary. | This document does not include any export controlled technical data.

BACKUP

