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# UTC Fire & Security Supplier Quality Requirements (SQR-01)

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## INTRODUCTION

This specification defines UTC Fire and Security (UTCFS) supplier quality system requirements and applies to suppliers and all members of their supply chain who furnish product, material, processes and services to UTCFS divisions.

UTCFS reserves the right to flow down additional requirements to satisfy specific customer and/or business requirements that apply to UTCFS. UTCFS requires that all qualified suppliers adhere to a defined set of Global Purchase Terms and Conditions. These Global Terms and Conditions define the critical elements of the “buyer” – “Seller” relationship, and establish the minimum level of expectations for both parties. These Global Terms and Conditions are typically provided during the supplier qualification process, and when significant changes or amendments to the document have been made. The supplier may request updated copies of the Global Terms and Conditions whenever necessary.

UTCFS has the right to disapprove a supplier’s Quality System as well as the Quality System of their subcontractors.

This document employs, as a foundation, ANSI/ISO/ASQ Q9001-2000 requirements and is supplemented by UTCFS requirements as defined herein. Unless otherwise specified, the ANSI/ISO/ASQ Q9001-2000 requirement shall apply.

Where a specific UTCFS Business Unit flows down Quality System requirements conflicting with this document; the stricter requirement shall prevail.

## QUALITY MANAGEMENT SYSTEMS – REQUIREMENTS

### 1. Quality Management System

- 1.1 All suppliers shall maintain an effective documented quality system that communicates, identifies, coordinates and controls all key activities necessary to produce a quality product.
- 1.2 Corrections to work instructions or documents shall be recorded, dated and signed in ink or other permanent marking method with the original data being legible and retrievable after the change. Work instructions and all other key documents must be revision controlled, with a process in place to ensure that older revisions are replaced with the latest revision in a timely manner.
- 1.2 Suppliers shall obtain and provide to UTCFS a DUNS number.

### 2. Management Responsibility

- 2.1 When establishing a new supplier as part of the UTCFS Qualified Supplier Listing (QSL), an initial Supplier Survey must be completed and submitted to UTCFS on FS-SQA Form 1, Initial Supplier Assessment (ISA). This document requires the supplier to provide general contact information; electronic funds transfer (EFT) and taxpayer identification information, and an initial survey containing data related to overall business structure, quality management systems and compliance.
- 2.2 Requests for deviations to the Quality System requirements specified in this document must be submitted to UTCFS on FS-SQA Form 2, Supplier Request for Information (SRI). Oral approvals are invalid; the completed and signed SRI is the only acceptable method for such approvals. The SRI is not used to document acceptance of non-conforming material or manufacturing processes.

The SRI shall also be used to clarify UTCFS requirements such as:

- An anomaly noted in a drawing or specification that could result in a nonconformance.
  - For clarification/interpretation of a drawing or specification not requiring the formal engineering change approval process or affecting contractual requirements.
- 2.3 UTCFS personnel shall be granted access to all information relating to the quality of procured products and services. This access will be granted by direct UTCFS suppliers and contractually flowed down to their sub-tiers. Examples of such information include, but are not limited to, scrap, rework, repair, first-pass yield and warranty information. Also, internal and external audit results/findings relating to systems and processes that impact UTCFS products and services shall be available upon request.

- 2.4 In the event of a significant quality-related issue, physical access to UTCFS suppliers' facilities shall be granted to UTCFS employees within 24 hours of request. This requirement shall be applied contractually to all members of the supply chain by UTCFS's direct suppliers.
- 2.5 All communications between the supplier and UTCFS, Quality Systems Manual and Procedures as well as any process documentation which requires approval or source qualification by UTCFS must be written in the language specified by the UTCFS Business Unit issuing the PO.
  - In cases where the supplier maintains copies in their native language as well as in the UTCFS-specified language and there is a conflict, the document written in the UTCFS-specified language shall take precedence.
- 2.6 UTCFS shall be notified immediately (not to exceed 24 hours) if potentially or confirmed non-conforming parts or material has been released from supplier's facility.

### **3. Product and Process Qualification and Control**

- 3.1 UTCFS shall be granted access to audit products and processes; access may include, but not be limited to, review of records, processes and products intended for UTCFS consumption. UTCFS shall be allowed to complete these audits at the supplier's facility in applicable production settings as required by UTCFS.
  - Findings may result in additional inspection requirements; the costs of these inspections shall be borne by the supplier (e.g. 3<sup>rd</sup> party oversight and release inspections).
- 3.2 For all parts/materials/processes, the supplier shall review and sign FS-SQA Form 3, Part Approval Check Sheet (PACS).
  - All Key Characteristics should be listed in the Control Plan and identified clearly on the part drawings.
  - For features identified as Key Characteristics, the Gage R&R shall not exceed 20% of tolerance.
  - Supplier shall target a Cpk of 1.33 for all Key Characteristics.
- 3.3 For all parts/materials/processes, the supplier shall complete FS-SQA Form 4, Part Qualification Process Warrant (PQP Warrant), and submit to UTCFS for review. A new or revised PQP Warrant shall be provided to UTCFS in the event of any of the following actions by the supplier or any of the supplier's sub-tiers:
  - Product modified by an engineering change to design records specifications, or material.
  - Correction of a discrepancy on a previously shipped part.
  - Use of another optional process or material than was used in a previously approved part.
  - Production from new or modified tools (except perishable tools), dies, molds, patterns, including additional or replacement tooling.
  - Production following refurbishment or rearrangement of existing tooling or equipment.

- Production following any change in process or method of manufacture to include changes in lubricants, mold release agents, or other process solutions.
  - Production from tooling and equipment transferred to a different plant location or from an additional plant location.
  - Change of source for key subcontracted parts, material or services (for example, heat treating, plating).
  - Product re-released after the tooling has been inactive for volume production for twelve (12) months or more.
  - Following a customer request to suspend shipment due to a supplier quality concern.
  - Any other activity that will result in a change to the Control Plan (CP).
- 3.4 For all parts/materials/processes, the supplier shall complete FS-SQA Form 5, Control Plan (CP), and submit to UTCFS for approval.
- 3.5 For all parts/materials/processes, the supplier shall complete FS-SQA Form 6, Initial Sample Inspection Report (ISIR), and submit to UTCFS for approval.
- 3.6 When specified on the drawing or Purchase Order, suppliers must use only sources approved by UTCFS for parts/materials/processes.

#### **4. Defect Resolution and Process Deviation/Change**

- 4.1 When requested by UTCFS, suppliers shall document the root cause and corrective actions for quality escapes on FS-SQA Form 7, Corrective Action Request (CAR). This document is based upon the 8D process.
- Supplier shall complete containment activities within 24 hours of notification.
  - Supplier shall complete all investigations within 15 working days.
  - In the event that sorting of non-conforming material is required at UTCFS site to support customer requirements the costs shall be borne by the supplier.
  - The costs of returning non-conforming material shall be borne by the supplier.
  - The costs of reworking non-conforming material shall be borne by the supplier.
- 4.2 For UTCFS-designed material, concessions for non-conforming material shall be submitted to UTCFS on FS-SQA Form 8, Supplier Deviation Request (SDR). Oral approvals are invalid; the completed and signed SDR is the only acceptable method for such approvals.

#### **5. Q+ and Supplier Gold Program**

UTCFS will require all suppliers to complete a Q+ self-assessment, and are subject to periodic Q+ surveys conducted by UTCFS Supplier Quality personnel. The intent of these assessments is to provide a fair appraisal of a supplier's quality system, process control and overall commitment to continuous quality improvement at the time of the survey.

For key suppliers that meet a minimum level of quality performance, UTCFS may request that the supplier participate in the Supplier Gold Program. This program is designed to accelerate superior performance and recognize supplier excellence. Suppliers may also request to participate in the program, assuming the supplier meets the minimum criteria as defined by UTCFS.

**End of Document**

## **Attachment 1**

### **Instructions for FS-SQR Form 1, Initial Supplier Assessment (ISA)**

#### **General Supplier Information:**

- Supplier to provide ship-to, bill-to and bank account information

#### **Electronic Data Sharing**

- Supplier to complete Electronic File Sharing Agreement and Electronic Funds Transfer authorization form. This would include transfer of UTCFS Supplier Terms and Conditions.

#### **Taxpayer Identification**

- Supplier to provide IRS Form W-9; Request for Taxpayer Identification Number and Certification

#### **UTCFS Supplier Survey**

Supplier to complete Sections 1.0 through 4.0, "UTCFS Initial Supplier Setup"

- Header:  
Supplier to provide Company and individual contact information
- Section 1.0:  
Supplier to answer specific questions regarding overall Business Structure
- Block 2.0:  
Supplier to answer specific questions regarding General Compliance and Intellectual Property concerns
- Block 3.0:  
Supplier to answer specific questions regarding Manufacturing, Engineering and Commodity structure
- Block 4.0:  
Supplier to answer specific questions regarding their internal Quality Management System (QMS)

**Note:** This document can be found in the "Vendor Management" section of the UTCFS Global Sourcing Webpage...

[http://supportcentral.ge.com/products/sup\\_products.asp?prod\\_id=30728](http://supportcentral.ge.com/products/sup_products.asp?prod_id=30728)

## **Attachment 2**

### **Instructions for FS-SQR Form 2, Supplier Request for Information (SRI)**

Supplier to complete Section I, "Supplier Furnished Data Items"

- Block 1: Enter supplier code supplied by UTCFS
- Block 2: Enter supplier name
- Block 3: Enter supplier location (city, state, & country)
- Block 4: Enter name and title of supplier personnel requesting information
- Block 5: Enter UTCFS part number or specification number
- Block 6: Enter UTCFS purchase order number
- Block 7: Indicate if any other documents/data are attached with submission
- Block 8: enter date SRI was submitted to UTCFS
- Block 9: Clearly define area of concern:
  - For drawing issues, list zone and tolerance/feature concern
  - For specifications, list paragraph and verbiage

**Note:** This form shall not be used to obtain concessions on parts, materials, or processes. It cannot be used to violate technical data or contractual requirements.

## Attachment 2 (Continued)

### I. Supplier Furnished Data Items (1 through 9)

1. Supplier Code No.	2. Supplier Name	3. Facility/Location	4. Requestor/Title
5. Part Number/Spec. No.	6. Purchase Order No.(s)/Line Item	7. Attachments Yes <input type="checkbox"/> No <input type="checkbox"/>	8. Request Date (mm/dd/yy)
9. Description of Request (Including any alternate methods or solutions)			

### II. UTC FURNISHED INFORMATION (ITEMS 10-15)

10. Buyer Code and Name	11. Assigned Dept: <input type="checkbox"/> Purchasing <input type="checkbox"/> QE <input type="checkbox"/> Eng. <input type="checkbox"/> Mfg Eng. <input type="checkbox"/> QA <input type="checkbox"/> SQA	12. SRI Tracking Number
13. Customer Response		
14. Respondent's Name / Date /	15. Buyer /Coordinator's Name / Date /	
<b>Signature:</b>	<b>Signature:</b>	
16. UTCFS Business Name/Location		

## **Attachment 3**

### **Instructions for FS-SQR Form 3, Part Approval Check Sheet (PACS)**

#### **1. General**

The Part Approval Check Sheet is used by UTCFS to define and establish the specific quality requirements that a supplier must meet for a given part. The check sheet will be prepared by UTCFS and provided to the supplier early in the procurement process. Suppliers should review the check sheet and ensure that all specific requirements are understood, and then sign and return the check sheet to UTCFS.

#### **2. Instructions**

- Supplier Information – Enter the supplier's name, location and contact person; completed by UTCFS.
- Part Information – Enter the specific part number, part name and revision level of the part(s) being qualified; completed by UTCFS.
- Key Characteristics – Identify all key characteristics of the part. Include a reference number corresponding to the characteristic on the part's drawing/specification; completed by UTCFS.
- Qualification Requirements – Check those items that are required for qualification, and provide additional detail as applicable (quantities, etc.); completed by UTCFS.
- UTCFS Authorization – The issuer of the check sheet is to sign and date the form; completed by UTCFS.
- Supplier Sign Off – The check sheet is to be signed and dated by an authorized supplier representative, indicating that all requirements have been reviewed and are fully understood; completed by Supplier.

## Attachment 3 (Continued)

<b>Part Approval Check Sheet</b>																									
<b>A SUPPLIER INFORMATION</b>	<b>B PART INFORMATION</b>																								
Supplier Name _____ Supplier Address _____ _____ Supplier Contact _____ _____	Commodity _____ Part Number _____ Part Name _____ Revision level _____																								
<b>C KEY CHARACTERISTICS</b>																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Reference #</th> <th>Specification</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Reference #	Specification											<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Reference #</th> <th>Specification</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Reference #	Specification										
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<b>D QUALIFICATION REQUIREMENTS</b> All checked items are required.																									
<input type="checkbox"/> Sample pieces Number required: _____	<input type="checkbox"/> Process capability studies Minimum Cpk for key characteristics: _____																								
<input type="checkbox"/> Dimensional analysis Number parts 100% dimensional: _____ Number parts critical characteristics only: _____	<input type="checkbox"/> Control Plan and Flow Chart  <input type="checkbox"/> Product FMEA																								
<input type="checkbox"/> Material test results (per drawings or specifications)	<input type="checkbox"/> Process FMEA																								
<input type="checkbox"/> Performance test results (per drawings or specifications)	<input type="checkbox"/> Gauge R&R studies Maximum allowable gauge error: _____																								
<input type="checkbox"/> Reliability test results (Per drawings or specifications)	<input type="checkbox"/> Quality System Certification Required Standard: _____																								
<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____																								
<b>E UTCFS AUTHORIZATION</b>																									
Issued by: _____ Date: _____ <div style="text-align: center; font-size: small;">Signature of authorizing UTCFS representative</div>																									
<b>F SUPPLIER SIGN OFF</b>																									
I have reviewed and understand the above requirements _____ Date _____ <div style="text-align: center; font-size: small;">Signature of authorized supplier representative</div>																									

## **Attachment 4**

### **Instructions for FS-SQR Form 4, Part Qualification Process (PQP) Warrant**

#### **1. General**

The Part Qualification Process (PQP) Warrant shall be completed and sent to UTCFS with all required documentation and sample parts.

#### **2. Instructions**

- Supplier Information – Enter the supplier's name, location, name of supplier contact, Telephone # and Fax #; completed by Supplier.
- Part Information – Enter the specific part number, part name, revision level, PO number; completed by Supplier.
- Reason for Submittal – Check all reasons that apply for the particular part being submitted for approval; completed by Supplier.
- Required Documentation – Check all items that are being submitted for qualification, and provide additional comments as applicable; completed by Supplier.
- Supplier Application Warrant – The warrant is to be signed by an authorized supplier representative, indicating that the application of the part in its intended system has been reviewed, and that the application conforms to the specifications for the part; completed by Supplier.
- UTCFS Disposition – Each of the responsible persons representing each function will indicate their disposition, and sign and date the warrant; completed by UTCFS.

## Attachment 4 (Continued)

<b>A</b>	<b>SUPPLIER AND PART INFORMATION</b>			
Date	Part Number	Supplier Name	Part Name	
Supplier Location	Revision Level	Supplier Contact	PO Number	
Telephone #	Quantity	Fax #	Required Date	
<b>B</b>	<b>REASON FOR SUBMITTAL</b> (check all that apply)			
<input type="checkbox"/> New Supplier	<input type="checkbox"/> New Part	<input type="checkbox"/> Resubmit		
<input type="checkbox"/> New Location	<input type="checkbox"/> Material Change	<input type="checkbox"/> Process Change		
<input type="checkbox"/> New Sub-Tier	<input type="checkbox"/> Specification Change	<input type="checkbox"/> New/Modified Tool		
<input type="checkbox"/> Other:				
<b>C</b>	<b>REQUIRED DOCUMENTATION</b>			
(check all that apply)	Comments			
<input type="checkbox"/> Sample Pieces				
<input type="checkbox"/> Dimensional Analysis				
<input type="checkbox"/> Material Test Results				
<input type="checkbox"/> Performance Test Results				
<input type="checkbox"/> Reliability Test Results				
<input type="checkbox"/> Process Capability Studies				
<input type="checkbox"/> Process Flow Chart				
<input type="checkbox"/> Control Plan				
<input type="checkbox"/> Design FMEA				
<input type="checkbox"/> Process FMEA				
<input type="checkbox"/> Gauge R&R Analysis				
<input type="checkbox"/> Other:				
<input type="checkbox"/> Other:				
<b>D</b>	<b>SUPPLIER APPLICATION WARRANT</b>			
I affirm that the samples represented by the warrant are representative of our parts which were made by a process that meets all contractual and technical requirements. I also certify that documented evidence of such compliance is on file and available for review.				
Signature of authorized supplier representative				
<b>E</b>	<b>UTCFS DISPOSITION</b>			
	Signature	Ship/Hold/Resubmit	Date	Comments
Purchasing				
Supplier Quality				
Engineering				
Manufacturing				
Other				

## **Attachment 5**

### **Instructions for FS-SQR Form 5, Control Plan (CP)**

#### **1. General**

The Control Plan is a detailed, step-by-step listing by which the part, component, etc., is to be manufactured, inspected, and tested. The control plan is to be maintained and used throughout the product life cycle. It is a living document reflecting the current methods of controlling the process and should be updated as control methods are evaluated and improved. The control plan is developed by the supplier and approved by UTCFS. This Control Plan form can be used to document a supplier's control plan, or suppliers may utilize their own format, as long as the document contains all of the required information as detailed in this attachment.

#### **2. Instructions**

- Control Plan No. - Enter a sequential number or code for reference purposes as required.
- Part Number/Latest Revision Level - Enter the part or assembly number and the latest engineering revision level of the item being controlled.
- Part Name/Description - Enter the part or assembly name of the item being controlled
- Supplier/Plant – Enter the name of the company and the appropriate division/plant preparing the control plan
- Key Contact/Phone – Enter the name and telephone number of the primary contact responsible for the control plan
- Core Team - Enter the names of all individuals responsible for preparing the control pan.
- Supplier - Obtain the responsible manufacturing plant approval signatures as required.
- Other Approval – Obtain any other agreed upon approval (if required)
- Orig. Date - Enter the date the original control plan was completed.
- Rev. Date - Enter the date the control plan is revised. This should occur whenever the applicable engineering drawing, manufacturing or quality specification or process is changed.
- Customer Engineering Approval - Obtain customer engineering approval (as required)
- Customer Quality Approval - Obtain customer quality approval (as required)
- Part/Process Number – This item number is usually referenced from the process flow chart.
- Process Name/Operation Description - Enter the names of the process from the process flow diagram for all process characteristics. E.g.: Drilling or Milling (not Machining), manual braze or auto braze (not braze).
- Machine, Device, Jig, Tools for Mfg – For each operation that is described, identify the processing equipment (e.g. machine, device, jig or other tools for manufacturing, as appropriate)
- Characteristic – No. – Enter a cross reference number from applicable documents such as process flow diagram, numbered drawing, etc.
- Characteristic - Product – Product characteristics are the features or properties of a part, component or assembly that are described on drawings or other engineering documentation. All key characteristics must be listed on the control plan. In addition, the supplier should list other product characteristics that are routinely tracked during normal operations.
- Characteristic - Process – Process characteristics are the process variables (input variable) that have a cause and effect relationship with the identified Product Characteristic. A Process Characteristic can only be measured at the time that it occurs. The supplier should identify Process Characteristics for which variation must be controlled to minimize product variation. There could be more than one Process Characteristic listed for each Product Characteristic. In some processes, one Process Characteristic may affect several Product Characteristics.

## **Attachment 5 (Continued)**

- Special Characteristic – Enter the appropriate characteristic classification, such as ‘Critical’, ‘Key Characteristic (KC)’, etc. This field can be left blank for undesignated characteristics.
- Product/Process Specification/Tolerance – Enter engineering, manufacturing or quality specifications/Tolerances as appropriate for the characteristic being controlled.
- Evaluation/Measurement Technique – Identify the measurement system being used. This could include gauges, fixtures, tools, and or test equipment required to measure the part/process. For key characteristics, and analysis of the repeatability and reproducibility of the measurement system should be done prior to relying on the measurement system.
- Sample Size - Enter the sample size being evaluated for the key characteristic being controlled.
- Sample Freq. - Enter the frequency of evaluation for the key characteristic being controlled.
- Control Method – Enter a brief description of how the operation will be controlled, including procedure numbers where applicable. The control method used should be based on effective analysis of the process. The control method is determined by the type of process that exists. Operations may be controlled by, but are not limited to, Statistical Process Control, inspection, attribute data, Mistake-Proofing, and sampling.
- Reaction Plan - Enter the reaction plan, i.e., what is to be done immediately to preclude the possibility of non-conformance when process parameters are violated or the process operates out of control, and to quarantine defective material if it is produced. Enter procedure or specification numbers where appropriate. The actions should normally be the responsibility of the people closest to the process, such as the operator or supervisor.



## **Attachment 6**

### **Instructions for FS-SQR Form 6, Initial Sample Inspection Report (ISIR)**

#### **1. General**

The Initial Sample Inspection Report should be completed and sent in to UTCFS whenever dimensional analysis is required on sample parts per the Supplier Qualification Check sheet.

#### **2. Instructions**

- Part Number – Enter the part number of the submitted part; completed by supplier.
- Part Name – Enter the part name of the submitted part; completed by supplier.
- Revision Level – Enter the revision level of the submitted part; completed by supplier.
- Date – Date analysis was completed; completed by Supplier
- Supplier Name – Supplier submitting the analysis; completed by Supplier.
- Supplier Location – Location of supplier facility that produced the part; completed by Supplier.
- Name of Inspection Facility – Name and location of inspection facility that performed the dimensional analysis; completed by supplier.
- Lab Report Attached – Indicate whether a lab report is attached; completed by supplier.
- Item – Sequentially number each of the inspected characteristics: completed by Supplier
- Dimension/Specification – Enter a reference number corresponding to the dimension specification on the part's drawing; completed by Supplier.
- Supplier Measurement Device/Technique – Identify the type of measuring device/measuring technique used; completed by Supplier.
- Supplier Measurement Results – Enter the actual measurement results obtained; completed by Supplier.
- UTCFS Measurement Device/Technique – Identify the type of measuring device/measuring technique used; completed by UTCFS.
- UTCFS Verification – Enter the actual measurement results obtained; completed by UTCFS.
- Ok/Not OK – After verification, indicate whether the characteristic is acceptable (OK) or not acceptable (Not OK) ; completed by UTCFS.
- Supplier Signature – The form is to be signed by an authorized supplier representative, and include their title and the date; completed by Supplier.
- UTCFS Disposition – An authorized UTCFS representative will indicate their disposition, and sign and date the form; completed by UTCFS.



# Attachment 7

## Instructions for FS-SQR Form 7, Corrective Action Request (CAR)

### 1. General

The 8D Corrective Action Report (CAR) is used to document the identification, root-cause analysis, corrective actions and follow-up of major or significant problems affecting purchased product quality. The CAR may be issued as a result of defective parts discovered both at a UTCFS plant and in the field.

### 2. Instructions

#### Header Information – (Completed by UTCFS)

- *Plant* – UTCFS issuing plant; completed by UTCFS.
- *Supplier* – Supplier from whom corrective action is required; completed by UTCFS.
- *Customer* – Name of UTCFS customer affected, if applicable.
- *Source* – Where the non-conformance was discovered.
- *Part Name* – The Part Name(s) of the parts affected.
- *Part Number* – Part Number(s) affected.
- *Concern or Title* – A brief description or title of the issue to be resolved.
- *Open Date* – The date the CAR was initiated.
- *UTCFS CAR Requestor* – The name of the person requesting the CAR.
- *Phone* – The phone number of the requestor.

#### D1 Team – (Completed by Supplier)

- Name the Champion: this is the person who fills in the report, chooses the team that works on the problem, chairs the meetings and organizes the agenda. The Champion is ultimately responsible for assuring the completion of all the actions described in the 8D.
- Name any other that should be involved based on their experience, training, or expertise. Write the title of each person.

#### D2 Problem description – (Completed by UTCFS)

- Describe the problem as completely as possible. Use Who, What, How many, When, Where, Why, How to gather information that is not obvious at the start.
- Use data to compare the problem to the standard, I.E. specification is 19-21 mm.
- Determine the problem frequency (%) and criticality.

#### D3 Containment Actions – (Completed by Supplier)

- Describe what has been done to keep the customer happy and to prevent them from receiving additional bad units. What was done or is to be done with the units? Were they sorted, reworked or scraped?
- Include rework method or method of identification of inspected conforming parts.
- % EFFECT: Estimate the probability of ONLY good parts getting to the customer after the IMPLEMENTATION-DATE.
- Implementation date on which the Containment Actions were begun.

#### D4 Root causes – (Completed by Supplier)

- The reason the problem occurred. The root cause is often not obvious or may be hidden by other causes. Use the 5 WHYS, ISHIKAWA method (fishbone), process flow, RRCA, IS/IS NOT or FMEA to determine root cause.
- The following are not root causes: operator error, machine set wrong, faulty components, machine breakdown, mixed parts, handling errors.
- Define the % contribution of each root cause.

## **Attachment 7 (Continued)**

### D5 Permanent corrective actions – (Completed by Supplier)

- Indicate what has been done to eliminate the root cause.
- Verification: Estimation of how successful the action has been. Confirmation of the effectiveness of the CORRECTIVE ACTION. Use data, i.e. CPK was 1.27, new CPK is 1.99. Attach all studies and testing results to the 8D.
- % EFFECT: rate of effectiveness.

### D6 Implemented permanent corrective actions – (Completed by Supplier)

- Describe how the CORRECTIVE ACTION was implemented.
- By whom (Responsible)?
- When (Implementation date)?
- Discuss the tools (PDCA, Mistake proofing, 5S, TPM, Standard work, etc. ) used to implement a permanent corrective action.

### D7 Actions to prevent recurrence – (Completed by Supplier)

- What we learned from our mistakes. List anything we have done or will do to prevent the problem from happening again (procedure, FMEA, control plan, internal audit...).
- How (Actions to prevent recurrence)?
- By whom (Responsible)?
- When (Implementation date)?
- If applicable to other similar operations, include global preventive actions i.e. FMEA's, Design guide, etc...

### D8 Congratulate your team – (Completed by Supplier)

- Hold a closing meeting to obtain agreement of the team on all the items contained in the 8D.
- Recognize the team for a job well done.
- Date the CLOSE DATE item.
- REPORTED BY: Write the Champion's name.

### UTCFS Concurrence

- The UTCFS CAR Requestor will disposition the CAR (Approve or Disapprove, and comments).
- Date the CLOSE DATE item.
- REPORTED BY: Write the CAR Requestor's name.

## Attachment 7 (Continued)

PLANT:		SUPPLIER:			CUSTOMER:	
Source		Concern or Title:			Open Date:	
Part Name					CAR Requestor:	
Part No.					Phone:	
D1 – Team:		D2 – Problem Description:			Frequency:	
Champion:					Criticality:	
Champion Phone:		Qty Eff:				
		Who:				
		Where:				
		When:				
		How:				
		What :				
		Why:				
D3 – Containment Action:		Responsible	Delay:	% Effect:	Implementation Date:	
D4 – Relentless Root Cause Analysis RRCA:					% Contribution:	
D5 – Chosen Permanent Corrective Actions :			Verification:		% Effect:	
D6 – Implemented Permanent Corrective Actions :			Responsible:	Delay:	Implementation Date:	
D7 – Actions to Prevent Recurrence:			Responsible:	Delay:	Implementation Date:	
Implementation:	<input type="checkbox"/>	Product FMEA	<input type="checkbox"/>	Process FMEA	<input type="checkbox"/>	Control Plan
					<input type="checkbox"/>	Procedure
D8 – Congratulate Your Team:			Close Date:		Reported By:	
UTCFS Concurrence			Close Date:		Reported By:	

## **Attachment 8**

### **Instructions for FS-SQR Form 8, Supplier Deviation Report (SDR)**

#### **1. General**

The Supplier Deviation Request (SDR) is used by the supplier to document a request for a product or process deviation. This form is to be sent to the UTCFS purchasing contact for processing.

#### **2. Instructions**

- **Supplier Information** – Enter the date, supplier's name (and location), name of supplier contact, Telephone # and Fax #; completed by Supplier.
- **Part Information** – Enter the specific part number, part name, PO number, quantity, and required date; completed by Supplier.
- **Deviation Request** – Identify whether the request is: 1) Product or process related; 2) a 1st time request or a repeat request; and 3) a permanent or temporary request; completed by Supplier.
- **Current Requirement/Process** – Fully describe the current requirement/specification or process; completed by Supplier.
- **Proposed Deviation** – Fully describe the requested deviation from the current requirement/specification or process; completed by supplier.
- **Reason for Deviation/Corrective Action** – Fully describe the reason for the deviation. Also identify the corrective actions to be taken to prevent a similar deviation in the future, if applicable; completed by Supplier.
- **UTCFS Approval/Disapproval** – The responsible persons representing each function will indicate their approval or disapproval, and sign and date the form; completed by UTCFS.
- **Disposition** – Identify whether the deviation requires a permanent drawing change. If so, enter the PCA number; completed by UTCFS.

**Attachment 8 (Continued)**

<b>A</b>	<b>SUPPLIER AND PART INFORMATION</b>		
Date	Part Number	Supplier Name	Part Name
Supplier Location	Revision Level	Supplier Contact	PO Number
Telephone #	Quantity	Fax #	Required Date
<b>B</b>	<b>DEVIATION INFORMATION</b>		
Deviation Request is:	<input type="checkbox"/> Process Related	<input type="checkbox"/> 1 <sup>st</sup> Time	<input type="checkbox"/> Permanent
	<input type="checkbox"/> Product Related	<input type="checkbox"/> Material Change	<input type="checkbox"/> Temporary
Current Specification or Process	Proposed Deviation	Reason for Deviation/Corrective Action	
<b>C</b>	<b>UTCFS APPROVAL/DISAPPROVAL</b>		
	Signature	Approve/ Disapprove	<b>Date</b> Comments
Purchasing			
Supplier Quality			
Engineering			
Manufacturing			
Other			
<b>D</b>	<b>DISPOSITION</b>		
Document Change Required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If Yes, PCA #
Comments:			

