Douglas Dynamics, Inc.

Supplier Quality Assurance Manual

GSS-F-051.7
4/29/2016

Douglas Dynamics, Inc. - Commercial Snow and Ice Division is the North American leader in the design, manufacture and sale of snow and ice control equipment. The company sells its products under the WESTERN®, FISHER® and SnowEx®, SweepEx®, and TurfEx®, brands which are among the most established and recognized in the industry. Douglas Dynamics has the industry's most extensive global distributor network, which primarily consists of truck equipment distributors who purchase directly from the Douglas Dynamics, Inc. and are located throughout the Snow Belt regions of the world.

Although each of our brands maintain its own distinct product characteristics, "best practices" developed at our facilities around the globe are exchanged and implemented company-wide.

The entire Douglas Dynamics (DD) organization is passionate about providing our dealers and their customers with the highest possible levels of product quality, customer service and product support.

Our customers depend on DD for durable, dependable, and reliable products supported by outstanding service and support after the sale. Our suppliers must be able to demonstrate the ongoing use a living quality system that shows evidence of continuous improvement. The Global Sourcing and Supply (GSS) team at DD expects our suppliers to perform flawlessly in meeting our needs for defect free component parts, assemblies and accurate documentation that support our lean environment. In that way, the GSS team at DD can work with an elite cadre of suppliers.

Supplier Quality Assurance Manual

1.0 Definition

Douglas Dynamics, Inc. Supplier Quality Assurance (SQA) program provides a path for Douglas Dynamics and it's suppliers to follow during product development to end of life, ensuring Douglas Dynamics and it's customers will consistently receive products and services that meet or exceed all expectations for dimensional, aesthetic, and performance characteristics.

2.0 Scope

This SQA program applies to suppliers of production assemblies, parts, materials, and services, including complete products marketed, or distributed by Douglas Dynamics Corporation or in the name of Douglas Dynamics, INC. at all Douglas Dynamics Divisions and sites.

3.0 Objective

The primary objective of this SQA program is to define how to consistently achieve all design requirements on supplied products or services and to continuously improve quality by reducing variation and by "centering" processes.

4.0 Supplier Assessment and Selection

DD has a formal supplier selection and rating program with metrics for each supplier showing Quality, Delivery, Lead Time, and Margin Improvement. In choosing suppliers, preference will be shown for those who are registered to ISO9000:2008, QS9000, or TS16949 standards. Registration may become a requirement in the future.

5.0 Advanced Product Quality Planning (APQP) and Production Part Approval (PPAP)

Newly designed components and existing items being redesigned will be categorized as either Custom or Commodity items. Suppliers quoting these items may be required to participate in APQP and PPAP activities as set out in this program or approved by the DD Supplier Quality Personnel. These requirements will be further communicated to the supplier through the APQP/Producibility Meeting and the PPAP warrant (example in Appendix L) that the DD will create and provide. DD adheres to the principle that PPAP qualification documentation is part of the cost of doing business in providing world class quality.

5.1 APQP/Producibility Meetings

- These meetings may be conducted per the Producibility Review Procedures for Purchased Parts (See Appendix D).

- The objective of these meetings is to review the specifications and various requirements for a new purchased part.
- During the APQP/Producibility meetings, the minimum PPAP

  requirements will remain consistent with those defined in this SQA Manual.

5.2 Custom Component requirements prior to production approval

- Early Supplier Involvement (ESI) meeting held
- Producibility meeting held
- PFMEA and Control Plan
- Material Certifications if applicable
- Level 2 PPAP warrant with prints, samples, and dimensional layout
- (use Supplier Process Capability Form) For specific electrical components, DD will require Gerber Files, substitute or alternate part specifications, tooling and injection mold prints, and software source code.
- Gage R & R
- Initial run data showing process capability of $\geq$ 1.33 CpK on selected dimensions.
- Evidence of a calibration program for all measurement instruments used to validate setup or confirm product conformity to specifications
- DD will require documentation indicating compliance with the Restriction of Hazardous Substances Directive 2015/863/EU (RoHS)

5.3 Commodity Components

- Have no APQP but require a Level 1 PPAP which requires an annotated print, sample parts, full dimensional layout, and Material Certifications. This is to ensure that both DD and the supplier understand the minimum requirements of Form, Fit and Function. DD will require documentation indicating compliance with the Restriction of Hazardous Substances Directive 2015/863/EU (RoHS)

5.4 Customer Notification

Will be required for design or process changes as indicated below. This notification **must** be submitted to the DD using the **Supplier Request for Change Approval** form, GSS-F-051 prior to making any material or process changes, see Appendix K. DD will decide if a PPAP submission is required and issue a warrant if needed.

- Production from new or modified tools (with the exception of perishable tools), dies, molds, patterns, etc. including additional or replacement tooling
- Production following a major refurbishment or rearrangement of existing tooling or equipment having a significant impact on process flow.

- Production from tooling and equipment transferred to a different plant location or from an additional plant location
- Use of process or material other than what was used during PPAP.
- Product produced after tooling has been inactive for twelve months or more.
- **Change of a subcontractor** for parts, non-equivalent materials, or services (e.g.: plating, heat treating)
- Correction of a discrepancy on a previously submitted part.

6.0 Supplier Corrective Action

6.1 Supplier Corrective Action Response (SCAR's) will be issued on non conforming products, inaccurate documentation, and ongoing delivery performance issues.

- Containment responses are required within 48 hours of receipt
- Root cause corrective action is required to close
- SCAR's are recorded as part of Supplier Performance Metrics

7.0 Warranty and Traceability

7.1 Supplied Product Warranties shall match DD's 2 year product warranty at a minimum.

- DD field warranty starts at installation
- Supplier must be able to provide traceability/lot code/date of manufacture documentation that correlates to the DD purchase order

Appendix A – PPAP Flowchart (GSS-W-008)

Needs Updating

Appendix B – Component Classification Matrix (GSS-F-049)

COMPONENT CLASSIFICATION MATRIX

Classification	Custom Component	Commodity Component
Symbol	None	None
Definition	Is a product or a product characteristic for which reasonably anticipated manufacturing variation is likely to significantly affect customer satisfaction (due to its fit, function, appearance etc.) and/or significantly impact manufacturing efficiency or ergonomics.	Is a product that is not design specific to DD and is readily available to the general public.
APQP Required	Yes	No
	Early Supplier Involvement (Recommended)	
	Producibility Review	
	Process Flow Chart	
	PFMEA	
Capability required	Yes	No
	1.33 Cpk Initial	
PPAP Required	Yes	Yes
	Level 2	Level 1
	Warrant, print, sample parts, capability studies on key dimensions, Gage R&R, process flow chart, DD approved control plan, PFMEA, dimensional layout, Certifications from original material supplier certs.	Annotated print, sample parts, full dimensional layout, Certifications from original material supplier certs.
DD Quality requirements	Review and approval of PPAP package at DD. May perform Incoming inspection per DD.	Suppleir ISIR and Incoming inspection
Ongoing monitoring required	Yes	Not required
	Suppliers internal control plan requirements	Suppliers internal control plan requirements

Appendix C – Glossary of Terms

1. **AIAG Automotive Industry Action Group** – Ford, GM, and Chrysler cooperative team that developed QS9000 Quality System.

2. **APQP Advanced Product Quality Planning** – This process will insure that all elements of risk will be addressed early in the design process. This process will require the supplier to produce the following documents: Process Flow Chart, Process Failure Modes and Effects Analysis (PFMEA), and Control Plan. Critical Dimensions may be identified with input required from DD.

3. **Calibration System** - A required system for DD suppliers. This program requires that all inspection, measuring, or test equipment used to verify product or process conformance are uniquely identified with a code or serial number and are calibrated on regular intervals against traceable standards.

4. **Capability (Process)** – The total range of inherent variation present in a stable process.

5. **Capability Indices - Cp Cpk** – Indices used to describe a stable process. Cp is the index describing how tightly the measured points are grouped together. Cpk describes the relationship between where the measurements are relative to the specification. The Cpk requirements at DD for initial capability is 1.33 for selected dimensions. The calculations to determine Cp and Cpk can be provided by DD.

6. **Commodity Component –** A commodity component is a component supplied to DD for production usage for which DD does not have design responsibility or control of the design. Examples of these types of components are commercial catalog items and hardware. These types of components require a DD level 1 PPAP submission.

7. **Control Plans** –A written summary of the systems used in evaluating and minimizing process and product variation. All custom components supplied to DD must be produced in accordance with an approved Control Plan preferably in the AIAG format. The Control Plan should be considered a living document requiring updates throughout the life of the product. The AIAG Control Plan format is available from DD.

8. **Critical Characteristic** – Is a characteristic for which reasonably anticipated variation is likely to significantly affect customer satisfaction with a product such as its fit, form, and function, or appearance or the ability to process or build the product.

9. **Custom Component** – A component for which DD controls the design characteristics where reasonably anticipated variation is likely and does significantly affect a product's fit, form, or function. These components require a DD Level 2 PPAP prior to production. After initial PPAP approval, any change must be requested by submitting the Supplier Request for Change Approval form, GSS-F-051 prior to making any material or process changes,

10. **Dimensional Layout Inspection** – Also known as an ISIR or FAIR, a layout inspection is a 100 % inspection of all part dimensions on the component print where the measured dimensions are recorded and compared against specifications. A minimum of three parts are required to be measured and recorded on the Supplier Process Capability Form GSS-F-036 or an AIAG equivalent version.

11. **Early Supplier Involvement** – a meeting where input is obtained from a supplier and considered during the prototype stage of the project.

12. **PFMEA – Process Failure Mode and Effects Analysis** - A PFMEA is a method for identifying and evaluating the potential failures of a process and the effects of that failure and subsequent actions that could be taken to eliminate or reduce the chance that the failure would occur. These actions for reducing risk should be addressed prior to production and subsequently on the product control plan. The PFMEA should be considered a living document requiring updates throughout the life of the product. The format for the PFMEA must be in the AIAG format and available if needed from DD.

13. **Gage Resolution** – The smallest change that a measurement system can detect and reliably indicate for a given measured dimension/characteristic. The gage must have a resolution at least 10 times greater than the tolerance of the dimension.

14. **GD&T – Geometric Dimensioning and Tolerancing** – a system for defining and communicating using symbolic language on engineering drawings and solid models that explicitly describes nominal geometry and its allowable variation

15. **GR & R – Gage Repeatability and Reproducibility** – A structured approach to evaluating measurement systems with regard to accuracy of the measurement system itself vs. what is being measured. The details behind Gage R&R calculations can be found in the AIAG Measurement Systems Analysis (MSA) manual and a spreadsheet to calculate error is available from DD. For variable data, DD requires a gage error of less then 15 % for gages measuring selected dimensions. Attribute gage R&R studies must use generally accepted MSA methods.

16. **Material Test Results** - Documented evidence that the results of raw material testing meets the requirements specified on the design record. The format for this form is available from DD.

17. **Performance Test Results** - Documented evidence that the results of performance testing meets the requirements specified on the design record. The format for this form is available from DD.

18. **Perishable Tools –** are drill bits, cutters, inserts, etc. used to produce a product and which are consumed in the process.

19. **PPAP - Production Part Approval Process**- The purpose of PPAP is to determine if all DD engineering design record and specification requirements are properly understood by the supplier and that the process has the potential to produce product consistently meeting these requirements during an actual production run. With the exception of the commodity components, all new or modified component parts require a PPAP submission. PPAP requirements are dependent on the component classification and are detailed on the *PPAP warrant* given to the supplier by DD with the release of a new program. When all required elements of the PPAP package meet the specified requirements, this package is to be submitted to the assigned DD SDS. Elements that do not meet targets or specifications require notification and approval by the assigned DD SDS.

    - **Level 1-** Requires warrant, samples, ISIR, annotated DD print (include material certs)

- **Level 2-** Requires warrant, samples, ISIR, annotated DD print, capability studies on key identified dimensions, GR & R on key dimensions, DD approved control plan, PFMEA,

  full dimensional layout, Gerber files, Software source code, substituted or alternate components specifications. Material Certs. Any changes to the part or process or material or material source change after PPAP approval **must** be submitted to DD using the Supplier Request for Change Approval form, GSS-F-051, prior to making any material or process changes,

- **PPAP Sample Labels must be used to identify parts submission (See appendix –M)**

20. **Process Flow Diagram** – Graphically depicts the flow of materials through the process, including rework or repair operations.

21. **Producibility Reviews** - a formalized process in which a cross-function team of representatives from both DD and the respective supplier, conduct a pro-active early-launch meeting to review part(s) requirements that will ensure the production process will produce a part consistently meeting the design intent.

22. **Production Materials** - Material which has been issued a production part number produced from production tools, shipped to DD.

23. **Production Pilot Run** – This is the manufacture of a lot consisting of a minimum of 30 consecutive pieces or other quantity as agreed to with DD, and from a minimum of 1 hours worth of production from the production environment.

24. **PPAP Warrant** – This is a standard document required for all newly tooled or revised products in which the supplier confirms that inspection and tests on production parts show conformance to DD requirements. This document is sent to the supplier with the DD tooling PO or launch of the program. Suppliers may use the AIAG standard format.

25. **Quality Manual** - The supplier's document that describes the elements of the quality system used to assure customer requirements, needs, and expectations are met.

26. **Quality Records** - Quality records are the documented evidence that the supplier's processes were executed according to the quality system procedures as detailed in the Control Plan (e.g. inspection results, internal audit results, calibration data).

27. **Risk Priority numbers (RPN)** – The cumulative effect (sum) arrived at in a calculation that involves assigning values that represent the impact to a customer of a potential non-conformance. In this calculation, the severity of the non-conformance relative to customer expectations is given a value as is the opportunity or frequency for a non-conformance to occur, and the ability to detect that non-conformance. A typical formula assigns the highest value of 10 to the most serious situations (Severity X Opportunity X Detection). Each number is multiplied by the successor; i.e. – a very severe problem would be 10 (X) opportunity to occur is low 2 = 20, (X) multiplied by an item easy to see with a discovery number of 2 --- for a total of 40 points.

28. **RoHS** – Restriction of Hazardous Substances Directive

29. **PPAP Sample Label** – To assure PPAP samples get to the correct destination, a PPAP Sample Parts label must be attached to the same box that the shipping packing slip is attached too. This label must be "Yellow" in color (prefer fluorescent yellow) and should be approximately 3" x 5 " in size. The information must be as shown in the example Appendix –M-

Appendix D – Producibility Form

See GSS-F-048

Appendix E – PFMEA Form (GSS-F-053)

Process Failure Mode and Effects Analysis (PFMEA)

Location:		**Business Unit Lead:**	
Business Unit:		**Prepared By:**	
Business Unit Process		**FMEA Date (Original):**	
Business Unit Supervisor:		**FMEA Date (Revised):**	

Process Description / Process Purpose	Potential Failure Mode	Potential Effects of Failure	Severity	Potential Causes of Failure	Occurrence	Current Controls	Detection	RPN	Recommended Action	Who is Responsible	Completion Date	Actions Taken	Severity	Occurrence	Detection	RPN
								0								0
								0								0
								0								0
								0								0
								0								0
								0								0
								0								0
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								0								0

Criteria:
For Each Potential Failure Mode, Rank Each Factor (Severity, Occurance, Detection) on a scale from 1 to 10

Severity	10 = Very Severe	1 = Minimal Severity
Occurrence	10 = Occurs Frequently	1 = Occurs Infrequently
Detection	10 = Difficult to Detect	1 = Easily Detected

NOTE: Safety Related Failure Modes are to be Ranked in the 8 to 10 Range

Risk Priority Number (RPN):
After Ranking Calculate the RPN:
RPN = (Severity) x (Occurrence) x (Detection)

Appendix F – Control Plan Form (GSS-F-050)

	Prototype		Pre-Launch		Production	Key Contact/Phone						Date (Orig.)		Date (rev.)	
Control Plan Number:															
Part Number/Latest Change Level						Core Team						Customer Engineering Approval/Date (if req'd)			
Part Name/Description						Supplier/Plant Approval/Date						Customer Quality Approval/Date (if req'd)			
Supplier/Plant			Supplier Code			Other Approval/Date (if req'd)						Other Approval/Date (if req'd)			

Part/ Process Number	Process Name/ Operation Description	Machine, Device, Jig, Tools for Mfg.	Characteristics					Special Char. Class.	Methods					Reaction Plan
			No.	Product	Process	Potential Failure	Results of Failure		Product/ Process Specification/ Tolerance	Evaluation Measurement Technique	Sample Size	Sample Freq.	Control Method	

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Appendix G – Gage R&R Form (GSS-F-057)

Reset

Supplier Gage Repeatability and Reproducibility Form

Part No. & Name: _____ Device Name: _____ Date: _____

Characteristic: _____ Device No.: _____ Performed by: _____

USL LSL

Specification: _____ Device Type _____

Oper	Enter Name				Enter Name				Enter Name				Enter Name			
Sample #	1st Trial	2nd Trial	3rd Trial	Range	1st Trial	2nd Trial	3rd Trial	Range	1st Trial	2nd Trial	3rd Trial	Range	1st Trial	2nd Trial	3rd Trial	Range
1				0.0000				0.0000				0.0000				0.0000
2				0.0000				0.0000				0.0000				0.0000
3				0.0000				0.0000				0.0000				0.0000
4				0.0000				0.0000				0.0000				0.0000
5				0.0000				0.0000				0.0000				0.0000
6				0.0000				0.0000				0.0000				0.0000
7				0.0000				0.0000				0.0000				0.0000
8				0.0000				0.0000				0.0000				0.0000
9				0.0000				0.0000				0.0000				0.0000
10				0.0000				0.0000				0.0000				0.0000
Totals		0		0		0		0		0		0		0		0
Sum $\bar{X}_A$		0		$\bar{R}_A$	Sum $\bar{X}_B$		0		$\bar{R}_B$	Sum $\bar{X}_C$		0		$\bar{R}_C$	Sum $\bar{X}_D$		0	$\bar{R}_D$

Avg R_A	
Avg R_B	
Avg R_C	
Avg R_D	
$\bar{\bar{R}}$	#DIV/0!

# Trials	D4
2	3.27
3	2.58
4	2.28

$\bar{\bar{R}}$	X	D_4	= UCL_R*
#DIV/0!	X	#N/A	#DIV/0!

Max $\bar{X}$	0
Min $\bar{X}$	0
$\bar{X}$ Diff	0

* Limit of individual R's. Circle those that are beyond this limit. Identify the cause and correct. Either a) repeat these readings, using the same operator and unit as originally used, or b) discard values, re-average and re-compute the grand average R and the limiting value UCLr from the remaining observations.

Measurement Unit Analysis*

% Tolerance Analysis

Repeatability - Equipment Variation (E.V..)**

E.V.. = $\bar{\bar{R}}$ **x** K_1

= #DIV/0! x #N/A

= **#DIV/0!**

Trials	2	3	4
K_1	4.56	3.05	2.50

$\sigma_{E.V.}$ = E.V./5.15 = **#DIV/0!**

% E.V.. = 100 x (E.V..) / (Tolerance)

= 100 x #DIV/0! / 0.000

= **#DIV/0! %**

Reproducibility - Appraiser Variation (A.V.)***

$$A.V. = \sqrt{[\bar{X}_{Diff} \text{ x } K_2]^2 - [(\text{E.V.})^2 / (\text{n x r})]}$$

= 0 #N/A #DIV/0! 0 0

= **0**

Operators	2	3	4
K2	3.65	2.70	2.30

n = number of parts = 0

r = number of trials = 0

$\sigma_{A.V.}$ = A.V./5.15 **0**

% A.V. = 100 x (A.V.) / (Tolerance)

= 100 x 0 / 0.000

= **#DIV/0! %**

Repeatability and Reproducibility (R & R)

$$\text{R \& R} = \sqrt{(E.V.)^2 + (A.V.)^2} \qquad \sigma_{R\&R} = \frac{\text{R \& R}}{5.15}$$

= #DIV/0! 0

= **#DIV/0!** **#DIV/0!**

%R&R = 100 x (R&R) / (Tolerance)

= 100 x #DIV/0! / 0.000

= **#DIV/0!** %

*E.V. and A.V. are based upon predicting 5.15 sigma(99% of the area under the normal distribution curve.)

** The K1 factors are only appropriate if (#operators) x (#samples) is greater than 15. If not, refer to the table on the in the index of the MSA book.

*** If a negative value is calculated under the square root sign, or if there is only one operator then A.V. = 0.

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Appendix H – Layout and Process Capability Form (GSS-F-036)

Supplier Layout & Process Capability Form

Date Inspected		Part Number		Tool ID	
Inspected By		Part Revision		Machine ID	
Supplier Name:		Part Name		Cavity/Hole Number	
Mfg. Location:					

ONLY ENTER DATA INTO THE YELLOW CELLS

PRINT DIM #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
NOM.																	
UPPER TOL.																	
LOW TOL.																	
USL	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
LSL	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Measure Method																	
SAMPLE 1																	
SAMPLE 2																	
SAMPLE 3																	
SAMPLE 4																	
SAMPLE 5																	
SAMPLE 6																	
SAMPLE 7																	
SAMPLE 8																	
SAMPLE 9																	
SAMPLE 10																	
SAMPLE 11																	
SAMPLE 12																	
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SAMPLE 26																	
SAMPLE 27																	
SAMPLE 28																	
SAMPLE 29																	
SAMPLE 30																	
AVG																	
SIGMA																	
3SIGMA																	
HIGH																	
LOW																	
RANGE																	
CPK																	
CP																	
Meet 1.33 Cpk?																	
Var. from nomin																	
High Out By																	
Low Out By																	
Within Tolerance?																	
Toll for 1.0 CPK																	
Toll for 1.33 CPK																	
Comments:																	

Appendix I – Material Results Form (GSS-F-055)

Douglas Dynamics, LLC

Production Part Approval - Material Test Results

Supplier		Part Number			
Name of Laboratory		Part Name			
Type of Test	Material Spec. No./Date/Specification		Supplier Test Results	OK	Not OK

Appendix J – Performance Results Form (GSS-F-056)

Douglas Dynamics,LLC

Production Part Approval - Performance Test Results

Supplier	Part Number
Name of Laboratory	Part Name

Ref. No.	Requirements	Test Freq.	Qty. Tested	Supplier Test Results and Test Conditions	OK	Not OK

Appendix K – Supplier Request for Change Approval Form (GSS-F-058)

SUPPLIER REQUEST FOR CHANGE APPROVAL

SUPPLIER TO COMPLETE			
SUPPLIER NAME AND ADDRESS			
DD AND/OR SUPPLIER PART NAME AND PART NUMBER OF ASSEMBLY AND IT COMPONENTS			
DESCRIPTION OF CHANGE:	☐ DESIGN	☐ MATERIAL	☐ PROCESSING
EFFECT OF CHANGE:			
TIME REQUIRED TO IMPLEMENT CHANGE AFTER APPROVAL			
INTERCHANGEABILE WITH EXISTING PART	☐ YES	☐ NO (design engineer approval needed)	IF NO, HOW?
SHIPPING SCHEDULE AFFECTED?	☐ NO	☐ YES (supply manager approval needed)	IF YES, HOW?
TOOLING OR FACILITIES CHANGE REQUIRED?	☐ NO	☐ YES	IF YES, EXPLAIN
PIECE COST AFFECTED?	☐ NO	☐ YES (supply manager approval needed)	IF YES, EXPLAIN
ADVANCED SUPPLIER DEVELOPMENT ENGINEER TO COMPLETE			
☐ APPROVED*	☐ PPAP WARRANT REQUIRED		
BY SIGNATURE:		DATE:	
REASON FOR REJECTION OR ADDITIONAL ACTION REQUIRED			
REVIEWED BY:			
PRODUCT DESIGN ENGINEER (As required):		DATE:	
SUPPLY MANAGER (As required):		DATE:	
*** This approval is granted upon the understanding that it is advisory in nature and in no manner changes the Suppliers original responsibility for insuring that all characteristics, designated in the applicable engineering specifications and/or inherent in the samples as originally tested and approved, are maintained. Supplier accepts full responsibility for the changes**			

or types of changes listed above; and should such changes result in less satisfactory performance than experienced with the originally approved item, Supplier will fully reimburse DD for all expenses incurred to correct the deficiency.

Appendix L - Supplier Corrective Action Form (Data Base Form)

EXIT | Supplier Corrective Action Request | eMail SCAR | Preview

Date: SCAR#: -

Supplier Name: From:

Address:

Attention:

Phone:

Purchase Order #:

Contact:

Phone:

Part #:	Part or Material Description:	Revision:	Qty Rec'd:	Qty Defective:

Description of Problem

Disposition:

- ☐ Returned to you for evaluation
- ☐ Returned to you for rework
- ☐ Reworked at your expense
- ☐ Used as is
- ☐ Sorted at our location for conforming parts
- ☐ Scrapped at our location
- ☐ Other:

Purchasing Approval:

☐ Send Copy to Accounting:

Return Authorization #:

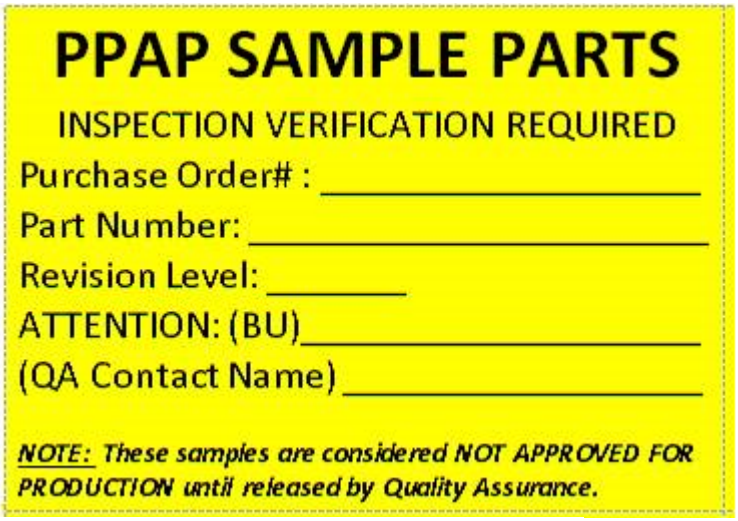
SUPPLIER TO COMPLETE THE FOLLOWING:

(If using your own CAR form, please attach to this SCAR form when submitting.)

Root Cause of Discrepancy:

Long Term Prevention Plan:

Appendix M – PPAP Sample Parts Label (example)



S-458 Yellow 3 x 5 Rectangle Custom Label

Description: PPAP SAMPLE PARTS

Paper Color: Yellow

Ink Color(s): Black