Supplier Quality Manual

SF-7.4-9000 / Rev C / 1-19-2023

REV LEVEL	REV DATE	DETAILS		DESCRIPTION OF CHANGE
		Page	Para.	
B	1-6-2022			Overall in many areas
C	1-19-2023			Updated default PPAP level to 2, added PPAP Appendix C, removed unused processes (new part launch req, Formal APQP, etc..)

1. Preface

Safe Fleet is committed to working with its supplier community to ensure customer satisfaction through total conformance to quality and delivery requirements.

This supplier quality manual is designed to help our suppliers understand the quality-related standards, requirements, methodologies and practices that suppliers should have in place to assure the on-time shipment of quality parts to Safe Fleet facilities. Communication is vital to the success of any quality system. We value straightforward and timely transmission of information in order to facilitate conformance to requirements or containment and resolution of non-conformance issues.

It is the intent of Safe Fleet to build strong and long-lasting relationships with its suppliers and we are committed to developing partnerships that mutually benefit both Safe Fleet and our supplier community. As we continually strive to improve the quality of our products and processes, it is essential that our suppliers join us in this pursuit. Safe Fleet stands ready to assist suppliers whenever possible to understanding product and delivery requirements, but the sole responsibility for quality and on-time delivery remains with our suppliers.

2. Quality Systems Requirements

General Quality Systems Requirements

Many Safe Fleet facilities currently maintain registration to ISO 9001 and require all present and potential component and production suppliers to operate within a comprehensive, documented quality system, which meets the intent of the ISO 9001 standard. As evidence, new to Safe Fleet suppliers must submit to a Quality System audit/risk assessment performed by a Safe Fleet Supplier Quality representative.

All registered suppliers must submit their initial and renewal quality system certifications to Safe Fleet Supply Chain within 30 days of receiving the certificate from their registrar. In addition, suppliers are required to immediately notify their Safe Fleet Supply Chain representative if their registrar places them on "Probation".

For existing Safe Fleet suppliers, Safe Fleet may perform an on-site or virtual quality systems assessment prior to awarding new business, or as an ongoing verification of supplier performance.

3. Production Part Approval Process

Production Part Approval Process (PPAP)

As a supplier to Safe Fleet you are required to comply with our PPAP guidelines unless otherwise specified by the Safe Fleet facility Quality or Purchasing department. These standards are inspired by the Automotive Industry Action Group (AIAG https://www.aiag.org/). A level 2 PPAP, supplied electronically, is the default submission level unless otherwise agreed upon by the Safe Fleet facility

Quality/Purchasing/Engineering departments. Supplier PPAP packages shall include at a minimum all component (internal and sub-supplier) Part Submission Warrants (PSWs), and may require additional PPAP documentation as per the Safe Fleet facility Quality department. Any part or assembly that is considered “off-the-shelf” and not design specifically for Safe Fleet (i.e. nuts, bolts, light bulbs, bulk or raw material, etc..), will only require material certifications unless otherwise designated by Safe Fleet engineering or purchasing. (See appendix C).

A full or interim approved PPAP is required prior to shipping production parts to Safe Fleet. Any production shipments received prior to obtaining this approval will be rejected. Any exceptions must be documented and approved on a formal deviation (Form F-PUR-001).

PPAPs shall be submitted to the Safe Fleet quality department for the production facility purchasing the components. Any associated PPAP sample parts shall be clearly labeled. All PPAP samples submitted for evaluation must be from production representative parts and made from production tooling, fixtures, processes, and equipment.

Determining when to submit a PPAP package

New products and any planned changes to existing products or processes, regardless of how small, must be reported to Safe Fleet Supply Chain personnel well in advance of change implementation.

New products will be covered by the PPAP requirements outlined above and elsewhere in this document. For any of the change conditions listed below, contact your Safe Fleet Supply Chain representative to determine submission requirements:

- A new part or component from an existing sub-supplier
- New sub-supplier for new or existing part or component
- Engineering change
- Material change
- Manufacturing process change, e.g., equipment change, line relocation, new tooling, dies, etc.
- Manufacturing facility change
- Other changes per Safe Fleet Supplier Quality Engineer or Quality Department.

Manufacturing Process Review

A systematic review of a supplier's manufacturing process may be conducted at the supplier's facility prior to or in conjunction with PPAP submission.

Annual Re-qualification

Unless waived in writing, the supplier shall annually inspect and test samples of each active product supplied to Safe Fleet to ensure conformance to all Safe Fleet specified requirements (e.g. dimensional, material and performance). These inspection requirements shall be included in the supplier's production control plan. Material testing shall be carried out by a qualified laboratory. Annual validation

documentation shall be on file at the supplier and available upon request. If a nonconformance is found during the annual validation, the supplier must notify Safe Fleet Quality immediately so that appropriate action can be determined and implemented.

4. Special Characteristics

Special Characteristics are any product or process characteristics that affect safety or compliance with regulations, fit, function, performance or subsequent processing of product. Special Characteristics shall be identified and specifically addressed in the DFMEA, PFMEA, Control Plans, Process Flows, Work Instructions and other associated documents. Designated Special Characteristics are identified on Safe Fleet drawings/specifications with an * or other symbol as defined by the plant to be supplied, or in separate Safe Fleet documents. Suppliers are also responsible for ensuring that relevant Special Characteristics are explained, understood and controlled by their sub-suppliers.

5. Material Performance Test Data

The supplier is responsible for conducting and submitting all design and/or performance testing as specified by Safe Fleet to validate conformance to specifications. Specifications include, but are not limited to, print dimensions and specifications, functional specifications, or established industry standards. In the event that the supplier does not have the capability for such testing, the supplier may outsource the services to a qualified and accredited sub-supplier or third-party laboratory or test facility. All testing costs are the responsibility of the supplier.

In addition, the supplier is responsible for maintaining and submitting certificates of analysis and updated test results as specified and required by Safe Fleet.

6. Process Capability and Control

Suppliers are required to meet the process capability requirements as defined in the AIAG PPAP and SPC reference manuals, unless otherwise specified, particularly for Special Characteristics, which must be controlled by SPC. The supplier is responsible to ensure process capability and control requirements are documented in their control plan, and that capability indices are achieved, monitored and improved throughout production. Suppliers may be required to provide Safe Fleet with process capability and control data at any time, or on an ongoing basis as circumstances dictate.

7. Sub-Supplier Control

Each supplier is responsible for the control and continuous improvement efforts of its suppliers. Suppliers shall require their suppliers of production goods and services to conform to the requirements specified herein and must implement and document appropriate controls.

8. Supplier Incoming Quality Process

Safe Fleet 3-Step Quality Process

Safe Fleet utilizes a 3-Step Quality Process to resolve supplier performance issues. Each step to be implemented with the failure to resolve each prior step or jumped to directly depending on the severity of the issue(s) being addressed.

Step 1 - Remedial Communication (SCAR Process)

A Supplier Corrective Action Request (SCAR) 8D is issued when an Safe Fleet receiving site receives material or service that fails to conform to a specific applicable quality and delivery specifications on a specific part, twice within a 12 month rolling time period. Also, at the Safe Fleet production facilities quality department's discretion, a SCAR may be issued upon the first instance of nonconformance. Within 24 hours of receipt, the supplier is required to return the SCAR to the Safe Fleet Quality Engineer with the following minimum information completed:

1. Acknowledgement of the problem
2. The immediate containment actions that have been implemented to protect Safe Fleet and its customers per Section 23 below.
3. The supplier team members who will address the problem along with their contact information.

A completed 8D SCAR with root cause identified (with a 5-why or Fishbone fully filled out) shall be submitted no later than sixty (60) calendar days after receipt of the nonconformance report, unless otherwise specified. A short-term and / or long-term plan to address root cause may also be required.

Costs and charges incurred associated with shipping, handling, processing, reworking, inspecting, engineering verification, and replacing supplier-responsible defective material, including the costs of value-added operations prior to its discovery, are the responsibility of the supplier.

Step 2 – On-Site or Virtual Procurement/Quality Meeting

An on-site working meeting at Safe Fleet with Safe Fleet's Supply Chain and Quality departments is a plant-led activity to address specific supplier performance issues not resolved in a timely fashion at Step 1. Working meetings focus on the development of an action plan to further identify and prevent or eliminate the root cause of the issue. The supplier is expected to submit periodic updates until the issue is resolved.

Step 3 – On-Site Leadership Meeting

An on-site leadership meeting is a plant-led activity involving the supplier's leadership team, and which addresses supplier performance issues not resolved in a timely fashion at Step 2. The purpose of this meeting is to identify at the leadership level of the supplier organization, all actions required for the permanent resolution of the systemic issues that led to the Supplier's unsatisfactory performance.

The supplier shall come prepared to address the following:

- Summary of events relating to the Supplier's performance concerns.

- Completed SCARs including containment actions, root cause analysis, corrective action, verification data and status.
- Preventive action plans and status to address systemic root cause(s)
- Strategic improvement plans

At the leadership meeting, both the receiving plant and the Supplier must agree on the Corrective Action Criteria. In addition, action plans that exceed 90 days duration may require supplier justification and may warrant interim leadership meeting reviews. The supplier is expected to submit periodic updates until the issue is resolved.

Following the leadership meeting, the supplier's situation will be included on the Safe Fleet internal Management Review agenda for discussion and determination of future business.

Suppliers may be prohibited from bidding on new business and/or may be in jeopardy of losing current business at any stage of the process. Suppliers who are placed on New Business Hold must improve their performance and remain in conformance for six consecutive months in order to be removed from New Business Hold. Suppliers will be formally notified by their Safe Fleet Procurement representative when they are placed on or removed off of New Business Hold.

10. Product Identification and Traceability

Product identification shall permit traceability to the specific supplier raw material lot numbers, as well as the manufacturing, inspection and test records. The supplier should also be able to trace where products made under similar conditions (same raw material lot, same manufacturing line/batch, etc.) were shipped. Suppliers are required to utilize and ship material on a first in first out (FIFO) basis. Sequence of batches must be identified on the packaging label by either a date code or batch/lot number. Safety-related identification criteria shall conform to all government regulatory and Safe Fleet requirements. No exceptions to this requirement shall be permitted unless acknowledged in writing by Safe Fleet. Please refer to S-PUR-001 Supplied Product Labeling and Documentation Specifications that can be found on the Safe Fleet web site: (https://www.safefleet.net/resources/suppliers/)

11. Gaging

Suppliers are expected to establish and maintain a gaging system that provides accurate data to support product conformance requirements. The system should provide inspection, measuring and test equipment necessary to assure quality conformity throughout the process. All measuring equipment must be controlled, calibrated at scheduled intervals, properly used and maintained in good working condition.

Gage repeatability and reproducibility (GRR) studies are required on all gages identified in the control plan. GRR studies are explained in the AIAG Measurement Systems Analysis (MSA) reference manual.

Safe Fleet GRR acceptance criteria are as follows:

- Under 20% is considered acceptable
- 20-30% is considered marginal, and may need to be improved
- Over 30% is considered not acceptable and should not be utilized until the measurement system is improved

12. Documentation and Record Retention

General Record Retention Requirements

Suppliers are required to maintain production part approval process (PPAP) packages, annual layout and validation records, tooling records, traceability records, engineering records, purchase orders and amendments for the length of time that the part (or part family) is active for production and/or service requirements plus one calendar year unless otherwise specified. Quality performance records such as control charts and inspection and test results as well as Corrective Action records are to be retained for the length of time that the part (or part family) is active for production plus the Safe Fleet warranty period unless otherwise specified.

The retention time periods listed above are considered "minimum". All retention times shall meet or exceed the above requirements and any applicable governmental requirements.

Change Approval

Engineering changes to purchased components and assemblies may be made by Safe Fleet to meet changing customer requirements, to improve product quality, or to reduce costs. Prior to the implementation of such changes, Safe Fleet will work with its suppliers to communicate the changes and effectively transition to the new designs. Suppliers must be prepared to provide all necessary samples and testing to ensure full compliance to specification prior to production.

Under no circumstances are suppliers permitted to make product changes or deviations without the prior written consent of Safe Fleet. Suppliers will be held liable for any and all direct or indirect problems and costs resulting from unauthorized changes.

Suppliers desiring to implement changes or deviations are required to complete the Safe Fleet Supplier Engineering Change Request (SECR) form (F-PUR-001) (https://www.safefleet.net/resources/suppliers/) and submit it to the appropriate Safe Fleet Supply Chain representative in advance of such change so that the necessary review, testing and approval can be completed prior to implementing the change in production. The supplier *must receive written authorization* to proceed with the change from the receiving site Supply Chain representative prior to implementing the change.

SECR forms are required for changes including, but not limited to, the following:

- A new part or component from an existing sub-supplier
- New sub-supplier for new or existing part or component
- Material change

- Manufacturing process change, e.g., equipment change, line relocation, new tooling, dies, etc. Physical or Functional Design change (Engineering change)
- Manufacturing facility change
- Other changes per Safe Fleet Supplier Quality Engineer or Quality Department.

Product or Process Deviations

It is Safe Fleet's policy to accept only product that meets the requirements of the applicable drawings and specifications. Suppliers desiring temporary deviations are required to complete the Safe Fleet Supplier Engineering Change Request (SECR) form (F-PUR-001) and submit it to the appropriate Safe Fleet Supply Chain representative in advance of shipment of the deviated product so that the necessary review and approval can be completed prior to shipment. The supplier *must receive written authorization* to proceed with the deviation from the receiving site Procurement representative prior to product shipment.

Deviations shall be approved only for a specific time period or quantity of parts. The deviation request shall include the identification of the containment period and the manner in which product will be identified, including how traceability will be maintained.

13. Delivery

Safe Fleet depends upon its supplier community to comply with the delivery requirements specified on Safe Fleet purchase orders. Suppliers are expected to achieve 100% on-time delivery defined as Full Product Quantity Receipt at Safe Fleet on or before the purchase order promise date. If suppliers are unable to meet scheduled ship dates, immediate notification to the appropriate Safe Fleet Supply Chain representative or Planner via phone and/or e-mail is required. Such notification shall include the reason(s) for the late shipment and the target date for delivery. A Supplier Corrective Action Request (SCAR) may be initiated based upon impact as determined by the Safe Fleet Supply Chain representative.

Inbound and / or outbound expedited freight charges required to meet Safe Fleet requirements due to late shipments shall be the responsibility of the supplier.

14. Packaging and Shipping Guidelines

Suppliers shall ensure their products are packaged and transported in a manner that prevents damage or deterioration to the product. Suppliers shall maintain documentation detailing proper packaging, cleanliness level, storage, and shipping instructions of its products. These instructions must conform to Safe Fleet receiving site requirements.

Each container, rack, box, or pallet of material shipped shall be identified as instructed by the Safe Fleet receiving site. Unique requirements will be identified and documented at a Pre-Award Meeting or other formal communication.

Please refer to S-PUR-001 Supplied Product Labeling and Documentation Specifications that can be found on the Safe Fleet web site: (https://www.safefleet.net/resources/suppliers/)

15. Preventive Maintenance

Suppliers shall maintain machines, equipment and tooling in sound working condition through the use of current preventive maintenance techniques. Preventive maintenance should include documented procedures and schedules for evaluation of tooling, dies, molds, fixtures, etc. at the start or end of each production run. Machines and processes should have a recorded history of periodic preventive maintenance. The preventive maintenance schedule should be based on unplanned downtime records, and should be used in future production planning.

Suppliers may be required to provide Safe Fleet with preventive maintenance records at any time, and a systematic review of a supplier's preventive maintenance process may be conducted at the supplier's facility as determined by the Safe Fleet Supply Chain representative.

16. Supply Agreement

For the mutual benefit of Safe Fleet and its suppliers, it may be desirable to enter into long-term supply agreements. Safe Fleet will consider such requests on a case-by-case basis. The Safe Fleet Manufacturing and Supply Agreement (F-PUR-002) shall govern all such agreements.

17. Supplier Performance Ratings

Supplier Scorecards shall be generated monthly for the top Safe Fleet spend suppliers and reported to these select suppliers within 45 days of the end of each month. The scoring criteria may be found at the bottom of each supplier scorecard.

Production suppliers are required to monitor their performance monthly and keep records accordingly.

Comparison of a supplier's performance to established targets is one method used by our plants to determine if a supplier should be issued a Supplier Corrective Action Request (SCAR), invited to an on-site quality review meeting, or placed on New Business Hold. Meeting established improvement targets does not relieve the supplier of the responsibility for 100% on-time delivery of defect free parts.

18. Product Certification

Circumstances may require that a signed certificate of analysis accompany each shipment of specified components or materials, as determined by the Safe Fleet Supply Chain representative or Quality department. The certificate of analysis must contain the actual results of physical testing, measurements and/or analysis specified by the contract confirming compliance with all identified requirements.

The supplier should have a system capable of providing the requested certificate of analysis within 24 hours of such a request.

19. Material Rejection and Corrective Actions

Non-conforming products present major problems for Safe Fleet and its customers. The avoidance of non-conforming product through rigorous testing and process control is vital. When non-conformances are detected, containment of non-conforming product is essential and full containment of non-conforming product must be achieved within twenty-four (24) hours of initial notification.

20. Charges for Supplier Responsible Non-conformances

The costs associated with non-conforming product are the responsibility of the supplier. A detailed layout of costs and conditions can be found on the Safe Fleet website (https://www.safefleet.net/resources/suppliers/) Such costs may include, but are not limited to:

- Nonconformance Report (SCAR) costs
- Nonconforming Product Deviation Requests
- Sorting, rework and/or handling fees at Safe Fleet established rates for actual time associated with non-conforming components or assemblies.
- Reimbursement of initial shipping costs and replacement part expedite charges.
- Reimbursement of Safe Fleet customers' charges for SCAR processing fees, and customer or third-party labor/rework charges.
- PPAP submission rejections or delays which impact project timelines
- Shipments of unapproved product
- Discounts on non-conforming material that can be used as-is for a short time

If a supplier believes that they have been unfairly charged for administrative fees, they shall contact their Supply Chain representative to initiate an inquiry.

Product Control and Containment Requirements

Containment for Nonconforming Parts

Suppliers shall implement standard product containment immediately upon notification of a nonconformance. Containment shall include at a minimum:

a) Identification of all product quantities within the supply chain.
b) Submission of a documented action plan for the containment of all parts within the supply chain. This includes, but is not limited to parts at the supplier's location, in transit and at the Safe Fleet receiving plant. Regular communication of the containment results directly to Safe Fleet.
c) Communication of the manner in which product will be identified as 100% quality certified/inspected by container or individual product.

d) On-site support at Safe Fleet, as required.
e) Utilization of a third-party inspection service when circumstances prevent the supplier from providing expedient and efficient containment.

Suppliers whose standard containment actions are found to be ineffective may be placed on Third-Party Containment, which includes all of the standard containment requirements specified above, with the added requirement of inspection by a third party. The third party will be contracted and paid for by the supplier. Safe Fleet may elect to have the supplier go directly to Third-Party Containment.

The supplier shall remain in containment (either standard or third-party) unless otherwise notified by Safe Fleet until permanent corrective action has been implemented and its effectiveness validated. Suppliers may exit from standard or third-party containment when the following criteria have been met:

a) 30 days of production have shown zero defects at the point of containment unless otherwise specified. If a defect is found at containment during this time the counter is reset and 30 clean days must be achieved from that point.
b) A Supplier Corrective Action Request (SCAR) with supporting evidence for the concern that caused the containment to be initiated has been submitted to the Safe Fleet Supply Chain representative and closure has been accepted by Safe Fleet.

Suppliers are expected to accept all costs and charges associated with containment activities, including but not limited to, shipping, handling, processing, reworking, inspecting, and replacing defective material, which shall include the costs of value-added operations prior to the discovery of the nonconformance, as well as any third-party inspection costs.

21. Third Party Sorting and Rework

In the event of a non-conformance in which the supplier cannot supply certified replacement product in a timely manner, Safe Fleet may elect, at its discretion, to sort and rework product in house or to contract for third-party sorting and rework of product. Charges for sorting and rework are the responsibility of the supplier.

22. Warranty and Cost Recovery

Products supplied to Safe Fleet are expected to perform free of defects or failure for the life of the Safe Fleet standard warranty period for the assemblies in which they are used. The supplier's warranty period begins at the date of inclusion of the supplied product into Safe Fleet's assemblies. Suppliers are expected to sign a binding warranty agreement outlining the reimbursement terms for warranty claims made against their products.

A copy of Safe Fleet's standard warranty policy may be obtained from your Safe Fleet Supply Chain representative and can also be found on the Safe Fleet web site (https://www.safefleet.net/product-and-service-warranties/).

23. Confidentiality

In the course of normal business activities, confidential Safe Fleet information may need to be shared with the supplier community. In such cases, Safe Fleet requires its suppliers to complete and submit a copy of the Safe Fleet Confidential Disclosure Agreement (F-PUR-004) in order to protect proprietary information and intellectual property. Failure to submit this agreement when requested will result in disqualification for new business projects.

24. Supporting Documents

Supporting Safe Fleet documents or forms can be obtained directly from the Safe Fleet receiving plant site Supply Chain representative or can be found on the Safe Fleet web site: (https://www.safefleet.net/resources/suppliers/)

APPENDIX A

Supporting Industry Documents

ISO9001: 2015 Quality Standard

American Society for Quality
P.O. Box 3005
Milwaukee, WI 53201-3005
or
600 North Plankinton Avenue
Milwaukee, WI 53203
USA

Web: www.asq.org

The following publications are available from the Automotive Industry Action Group (AIAG):

- Quality System Requirements ISO/TS-16949 (ISO9001-2000)
- Quality System Assessment (QSA)
- Production Part Approval Process (PPAP)
- Advanced Product Quality Planning and Control Plan (APQP)
- Potential Failure Modes and Effects Analysis (FMEA)
- Measurement Systems Analysis (MSA)
- Statistical Process Control (SPC)

These documents can be purchased from:

Automotive Industry Action Group
26200 Lahser Road, Suite 200
Southfield, MI 48034
Web: www.aiag.org

Appendix B

Injection Mold Tooling Responsibilities

Part Supplier (PS) Managed Tooling

Introduction

- This document contains tooling specific responsibilities. When conflicts arise between program specific statements of work (SOW) and these tooling responsibilities, this document will prevail.
- This document outlines the tooling expectations and definitions of responsibilities associated with the development of injection mold tooling for Safe Fleet (SF) through its part supplier (PS).
- All Tooling is subject to audit and approval by SF.
- THIS DOCUMENT IS NEITHER A SUPPLY AGREEMENT NOR A PROMISE TO ENTER INTO A SUPPLY AGREEMENT. In the event PS enters into a contractual relationship with SF (pursuant to a Purchase Order, Long-Term Agreement or some other written document executed by SF designated as a form of supply agreement, hereafter called the "Contract"), the Contract shall govern the terms and conditions of the PS -SF contractual relationship.
- In the event of any conflict between a term of the Contract and a provision of these Part Supplier Tooling responsibilities document, the Contract shall supersede and govern. In the event that a Contract has been or is entered into between PS and SF, the procedures and obligations set forth herein shall be met by PS and, if a Contract is consummated, shall become express warranties made by PS and SF.

Part Supplier Tooling Responsibilities

1. The PS is responsible for managing all aspects of tool development, design, build, launch, and meeting quoted cycle time unless informed otherwise, in writing, by the SF Tooling Buyer for the respective program. These responsibilities include, but are not limited to the following:
    a. Conduct a formal product design review for feasibility concerns that affect the product, tooling, or manufacturing. Communicate and track product design recommendations to SF in writing, which may include resolution to product or tool feasibility issues, simplifications of tool function, improvements to product or tool designs, and cost reductions. PS must obtain written approval from the SF business unit for any unresolved product or tool feasibility items before initiating original tool build or subsequent engineering change.

b. Design all tools to the latest level of SF tooling standards with CAD data clearly identified as “OK to Tool” and drawings with GD&T (geometric dimensioning and tolerancing) provided by SF, for approved and released levels.

c. Build all tools to meet, at a minimum, SF’s tooling & gage standards.

d. Track and log all data levels, changes, agreements, and transmissions.

e. Obtain written authorization after kick-off meeting to proceed with initial tooling or tool engineering changes from SF in the form of a Purchase Order.

f. Attend SF launch team meetings with qualified tooling engineers, design reviews, and customer tool shop visits as required.

g. Issue written tool progress reports and tool-tracking spreadsheets to SF throughout the build of the tools to meet the program requirements and milestones.

h. Provide material that is certified to meet SF design intent for tool tryout process. PS is responsible for all tryout material.

i. Provide SF with sample parts from the tool tryout runs upon request.

j. Shipment of tools to the required destinations from the tool shop.

k. Perform all internal and external PPAP requirements for each tool to meet program timing.

l. Managing and advising SF on potential obsolescence during engineering changes, model year changes and production balance out.

m. Any part or tool issues associated with the tooling if already under construction (whether in the process of design, build, launch or prior launched tooling) must be identified and resolved by the PS before signing the SSOW and/or Award Letter. Otherwise, PS is required to meet all SSOW, quoted items and the responsibilities set forth herein.

n. Perform mold flow, mold cool, and warp analyses for any tool required by SF or its customers.

2. The PS is responsible for preparing and executing the tooling request for quote (RFQ) process, unless SF has sourced the tooling prior to award. These responsibilities include, but are not limited to the following:

    a. Define the tooling requirements to meet the minimum SF tooling & gage standards.

b. The PS's tooling quote in response to the RFQ must detail the process that will be utilized in production including mold cavitation. PS must request tool line-up defined by SF if available to allow an "apples-to-apples" comparison on tool cost.

c. Tooling quotes must be received on the SF Tool Cost Breakdown Sheets, and all appropriate fields must be completed in order be valid. PS must submit at least three competitive tool quotes, which must include both Low Cost Country (LCC) and domestic sources.

d. The PS should schedule a joint meeting between the SF Engineering and Supply Chain when all parties have received the quotes and are ready to discuss tooling cost, tool process, function, timing, and source selection with geographical location.

3. Unless tooling has been or will be sourced by SF, the PS is responsible for sourcing the tooling at the agreed upon tool cost defined in the Purchase Order. Tool sources must be identified and communicated to SF Tool Purchasing. SF reserves the right to prohibit the building of any tool at any particular tool source.

4. The PS is responsible to track the progress of the tool build and timing. Current timelines and pictures of the tools in progress must be provided upon SF request. The PS is responsible to meet all program timing and deliverables associated with the tool and any early part requirements required off the tool during the tool build, at the tooling supplier, or PS before production release requirements.

5. For all tools with PO's issued by the PS, the PS is responsible to support all SF & SF customer audits and provide documentation that reflects the cost of the SF P.O. to the PS. The PS will refund (or SF may debit PS for) any SF tooling payments that cannot be supported by appropriate documentation (i.e., pursuant to a SF audit) to SF upon SF's request.

6. All SF / OEM CUSTOMER owned tools are to be identified per SF and OEM CUSTOMER specifications.

    a. The following items are considered tooling and therefore the property of SF or the OEM:

        i. Tools specifically made for the production of a part or parts unique to SF or OEM CUSTOMER.

        ii. Unique computer software required directly for the production and or gauging of parts for SF or OEM CUSTOMER.

    b. The PS is responsible to mark the tool such that it contains the required information as specified in the SF Injection Mold Tooling Standards and by SF Purchasing, including the manner in which the tool is marked (plaques, engraving, etc.).

c. The following items are not considered tooling and are not acceptable as part of a tooling bill, even if they are dedicated but not unique:

   i. Generic tooling, general-purpose items, processing or capital equipment, and computer hardware.

   ii. The cost of or associated with automation, test equipment, process control equipment, manufacturing learning curve, launch costs, operator training, and vision cameras.

7. Tool cost submitted to SF is limited to the following: design of tools, tool build labor, tool build materials, one (1) tool sampling, and initial tool shipment to the manufacturing facility. All gages must be quoted as a separate line item. Costs of capability studies are considered part of the PS's overhead. A general percentage markup of tooling is not allowed. SF must be notified of, and reserves the right to be present for any run-at-rates of new tooling. Costs associated with managing the tool build and launch are also considered part of the PS's overhead and will not be reimbursed under any circumstances.

8. SF reserves the right to decline payment of any tooling cost not supported by a SF Tooling Purchase Order.

9. PS that designs, develops, or manufactures tooling in-house will provide all associated overhead costs in fully accounted tooling labor rates to SF upon request. In addition, before placement of any tooling work with internal tool shops, the PS will provide evidence to SF of competitive quoting with outside tool sources. PS records will be subject to audit by SF (or a third party designated by SF).

10. Changes that occur while new tooling is being constructed should be completed by the tool shop(s) currently constructing the tools. Cost of changes must be validated individually by review of the tool cost breakdown prior to issue of purchase orders. Changes that occur to tools after the tool build is complete are also required to have costs validated prior to issue of purchase orders. SF reserves the right to conduct run-at-rates after changes have been completed.

11. PS will manage tool shop and work schedules to meet SF program requirements without additional charges. However, in those circumstances where overtime at a tool shop becomes necessary, SF will consider requests for reimbursement for that overtime. SF maintains sole discretion whether or not to reimburse such overtime. Before proceeding with work, it is necessary that these costs be reviewed and agreed to by a SF Operational Buyer / Tooling Buyer. Final authorization to proceed with a change must come from a SF Operational Buyer by means of a Purchase Order.

12. SF must be notified and agree in writing to, in advance, the transferring of tools from one manufacturing site to another. The PS will cover all costs associated with the transfer of tools. SF

reserves the right to re-PSO (Part Sign Off) after tools have been transferred. The PS is responsible for design and build of all tooling used to manufacture parts awarded to the PS and shall meet all applicable SF tool standards.

13. The PS is responsible to ensure the quality and manufacturing capability of the tooling for the entire life of the program, including the service period after production balance-out. PS will notify SF in advance of implementing any engineering change if that change will impact the tool's ability to provide service part requirements.

14. The PS is responsible for the tooling preventative maintenance and spare parts so as to meet all SF manufacturing, delivery, and quality requirements. Preventative maintenance plans must be documented and kept on file by PS. SF reserves the rights to review the PS's preventative maintenance and spare parts plans. If adequate record of a preventative maintenance cannot be documented, refurbishment costs to bring the function of the tool up to an acceptable level will be at the expense of the PS.

15. The PS will insure and protect said property against loss or damage.

Appendix C

Basic Safe Fleet PPAP Requirements

Purpose: The purpose of this document is to provide guidelines for determining what level of PPAP to request for supplier PPAPs. *NOTE: PPAP levels customized and not standard AIAG PPAP requirements. Reference section 3.0.*

Instructions:

1.0 The default PPAP level request for all supplier PPAPs will be Level 2.

2.0 In some cases, it may be desirable to request a different level of PPAP based on the criticality and/or complexity of the material and parts being purchased.

2.1 Examples:

2.1.1 Raw or Bulk Materials – in most cases a Level 1 PPAP with material certification is only needed.

2.1.2 Parts that exhibit one or more of the following characteristics (but not limited to) may require a Level 3,4, or even a Level 5 (onsite) PPAP. This to be determined by agreement by representatives from Engineering, Quality, and Purchasing.

- Many critical dimensions
- Determined to be mission critical to customer safety
- Required by the customer to have a higher level PPAP
- Have a history of being very difficult to produce at the required quality level

3.0 Reference

Requirement	**Level 1**	**Level 2**	**Level 3**	**Level 4 (Custom)**	**Level 5 (@ Supplier)**
1. Design Records - For proprietary components./details - For all Other components/details	X X X	S X S	S X S	* * *	S X S
2. Change Documents, if any	X	S	S	*	S
3. Customer Engineering Approval, if required	X	X	S	*	S
4. Design FMEA	X	X	S	*	S
5. Process Flow Diagrams	X	X	S	*	S
6. Process FMEA	X	X	S	*	S
7. Control Plan	X	X	S	*	S
8. Measurement Systems Analysis Studies	X	X	S	*	S
9. Dimensional Results	X	S	S	*	S
10. Material, Performance, Test Results	X	S	S	*	S
11. Initial Process Studies	X	X	S	*	S
12. Qualified Laboratory Documentation	X	S	S	*	S
13. Appearance Approval Report (AAR). (If applicable)	X	S	S	*	S
14. Sample Product	X	S	S	*	S
15. Master Samples	X	X	R	*	R
16. Checking Aids	X	X	R	*	R
17. Records Of Compliance with Customer requirements	X	X	S	*	S
18. Part Submission Warrant (PSW) Bulk Material Checklist	S S	S S	S S	S S	S S

S - Submit to Customer

R - Retain at manufacturing location and make available to customer if requested

* - to be determined when sourcing

X - not required

PPAP 18 Elements:

1. **Design Records:** A copy of the drawing or model provided by customer.
2. **Engineering Change Documents:** Detailed description of changes of parts from previous revisions called Engineering Change Notice.
3. **Customer Engineering Approval:** Customer approval of sample production parts.
4. **Design Failure Mode and Effects Analysis (DFMEA):** Prediction of a product's potential design failure.
5. **Process Flow Diagrams:** All steps in manufacturing process including components, measurement, and inspection.
6. **Process Failure Mode and Effects Analysis (PFMEA):** Prediction of a potential process failure that could occur during production.
7. **Control Plan:** Details the plan for how quality will be implemented to ensure a stable and reliable process.
8. **Measurement System Analysis (MSA):** Conformance to customer's ISO or TS standard. Usually Gage R&R for critical impact characteristics to control repeatability and reproducibility and confirmation that gages are calibrated to measure these characteristics to control measurement bias.
9. **Dimensional Results:** A list of every dimension noted on the ballooned drawing or model with pass/fail assessment.
10. **Material / Performance Test Results:** Summary of every test performed on the part, usually in the form of DVP&R (Design Verification Plan and Report).
11. **Initial Process Studies:** Shows that critical processes are reliable. Includes SPC (statistical process control) charts.
12. **Qualified Laboratory Documentation:** All industry certifications for validation testing.
13. **Appearance Approval Report (AAR):** Customer approval on final product appearance including color, texture, fit, and more.
14. **Sample Product:** Sample from initial production run.
15. **Master Sample:** Sample part signed off by customer and supplier.
16. **Checking Aids:** Detailed list of all tools used to inspect and measure parts.
17. **Records of Compliance with Customer-Specific Requirements:** List of customer's specific requirements for PPAP process.
18. **Part Submission Warrant (PSW):** Summary of entire PPAP submission.