# **Introduction/ General**

### Note: Nothing in this standard SHALL supersede applicable laws and regulations. In the event of a conflict between English and a domestic language, the English language SHALL take precedence. GM issued drawings and Math supersede any conflicts created by this specification. ANY conflict within this CG documentation must be brought the attention of the GM Commodity SQE and DRE for resolution. Refer and comply to AIAG FMEA VDA Handbook or AIAG PFMEA 4th Edition and CG4338 GM 1927 03 SQ SOR.

### **Purpose**: It is the responsibility of the supplier to ensure that the manufacturing process is state of the art. The expectation is for GM to receive parts that meet 100% of the specifications as defined by GM. It is the responsibility of the Supplier to ensure that the process **meets or exceeds** all requirements and able to show compliance through the associated Commodity Specific Audit (self-audit and/or through onsite audit by GM personnel) by the time of the APQP Kickoff review and verified according to the CRV process.

## **Applicability**: These requirements are in addition to any requirements as outlined in GC4338 GM 1927 03 Supplier Quality SOR. The terms “SHALL” in this document is mandatory and “Should” is highly recommended. Again, please refer and comply to AIAG FMEA VDA Handbook or AIAG PFMEA 4th Edition and CG4338 GM 1927 03 SQ SOR.

## These requirements SHALL be valid for any components or assemblies manufactured at the sub-supplier (Tier 1 or Tier 2… Tier x.). The Tier 1 supplier SHALL be responsible to validate and audit to these requirements at sub-tiers and provide evidence to GM upon request.

## All deviations requested for “SHALL” items are to be documented and submitted using CG3404 M7 Technical Issues List for review and approval by General Motors Supplier Quality prior to sourcing.

## It is understood that advances in technology may require modifications to the following requirements in order to ensure that state of the art processing and testing are being utilized. Alternative solutions that achieve the intended requirement SHALL be documented and approved by the GM SQE.

**PPAP Build Fidelity and Submission Requirements**

**Non-Saleable PPAP:**

Parts **Shall** be manufactured at production site using production tooling, production gaging, production process, and production materials. Control plan and gaging **Shall** be production intent. Any deviation requires an approved SQMS action plan. Build quantities should be appropriate for process development and program requirements.

**Approved PPAP:**

A significant production run (300 pcs min unless a lesser qty. is authorized and approved by GM SQE) conducted at the production site, at the contracted production rate using the production tooling (full cavitation for multiple cavity tool), production gaging, production process, production materials, and production operators. Production control plan and gauging **Shall** be utilized. Supplier **Shall** demonstrate process capability for key characteristics with a quantity determined to be acceptable and agreed upon by GM SQE.

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|  | **AIAG PPAP Submission Requirements** | **Non-Saleable PPAP** | **Approved PPAP** |
| 1 | Engineering Design Record (Ballooned Drawing) | Submit | Submit – No Deviations |
| 2 | Authorized Engineering Change Document | \* | Submit – No Deviations |
| 3 | Customer Engineering Approval | \* | Submit – No Deviations |
| 4 | DFMEA | Submit | Submit – No Deviations |
| 5 | Process Flow Diagram | Submit | Submit – No Deviations |
| 6 | PFMEA | Submit | Submit – No Deviations |
| 7 | Control Plan | Submit | Submit – No Deviations |
| 8 | Measurement System Analysis Studies | \* | Submit – No Deviations |
| 9 | Dimensional Results | Submit | Submit – No Deviations |
| 10a | Records of Material Test Results (including IMDS) | Submit | Submit – No Deviations |
| 10b | Records of Performance Test Results (GM3660) | \* | Submit – No Deviations |
| 11 | Initial Process Studies | \* | Submit – No Deviations |
| 12 | Qualified Laboratory Documentations | \* | Submit – No Deviations |
| 13 | Appearance Approval Report (AAR) | \* | Submit – No Deviations |
| 14 | Sample Production Parts | \* | Submit – No Deviations |
| 15 | Master Sample | \* | Submit – No Deviations |
| 16 | Checking Aids | Submit | Submit – No Deviations |
| 17 | Customer-Specific Requirements | \* | Submit – No Deviations |
| 18 | Part Submission Warrant (PSW) | Submit | Submit – No Deviations |

**Submit =** Expected with PPAP submission when applicable

**Asterisk (\*) =** May not be expected with PPAP submission (SQE discretion)

SQMS action plan required for any item that is missing, incomplete, or deviates from requirement regardless if expected or not with PPAP submission. Risk reduction activities **Shall** be incorporated into an action plan until approved PPAP is achieved. Refer to GM 1927 09 PPAP Action Plan Worksheet.

Acknowledgement

Please sign, date, provide evidence (current and/or empirical) and return this document as a record of your understanding of these requirements

Authorized Supplier Management:

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Print Name Signature Title

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Supplier Manufacturing Location Duns

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| **Change History** | | | | |
| **Date** | **Version** | **Change Summary** | **Approver** | **Approving Department** |
| 4/04/2017 | Initial Template | Created Global Propulsion Appendix F format for new SOR | Brian Davis | GPS Global Process |
| 4/28/2017 | 1.0 | Added assigned CG Number and uploaded into GDM for release | Craig Kirbitz | GPS Global Process |
| 5/31/2019 | 1.1 | Change in ownership and update to naming convention – NO CHANGE to requirements | Rick Kage | SQ Manager Global Transmission |
| 3/29/2022 | 2.0 | Updated to new GM Logo, CG4317 GM 1927 03a Supplier Quality FMEA for GPS, added changes to capability run qty and PPAP production run to SQE discretion, added reference to the new AIAG FMEA VDA Handbook; Addition CG 4338 GM 1927 03 SOR, added reference to GM 1927 09 | Craig Kirbitz | GPS Global Process |