SAIC General Motors Co., Ltd.
上汽通用汽车有限公司

SGM Supplier Quality Statement of Requirements
上汽通用汽车对供应商质量要求的规定

(The 3.1 Edition)
（第 3.1 版）

July, 2015
二零一五年七月

前 言

SGM 要求其供应商满足最新版 ISO/TS16949 及相关参考手册的要求，并适用所有通用汽车的相关顾客特殊要求（明确不适用于通用汽车亚太区的部分除外）。要求供应商满足通用汽车供应商质量 SOR 的要求及通用汽车一般程序的适用部分（如 GP-5，GP-8，GP-9，GP-10，GP-11，GP-12 等）。

本文件概述了上汽通用汽车对供应商质量方面的基本要求，是有关 SGM 供应商质量工作相关的程序和规定的节录，目的是为了帮助供应商更好地了解和执行 SGM 的相关要求。

欲了解相关具体要求和规定，请参考 ISO/TS16949 系列、GM Global APQP 等文件及 SGM 其他有关程序文件。

如有任何问题，请与相关主管 SQE 联系。

欢迎各位 SQE、供应商或其他使用人员反馈您的修改意见，有关意见请反馈至上汽通用汽车采购部 SDE 小组 。

第二版制订说明

针对 GM Global APQP 的更新内容以及 SGM 当前业务发展的需要，同时结合 SGM 电子采购 E-Procurement 系统的相关操作要求，SGM 采购部对《上汽通用汽车对供应商质量要求的规定》进行了相关内容的修订，并于 2008 年 1 月发布第二版。

欢迎各位 SQE、供应商或其他使用人员反馈您的意见或建议，有关意见或建议请反馈至上汽通用汽车采购部 SDE 小组 。

上汽通用汽车采购部
供应商质量与开发科
2008 年 1 月 1 日

第三版制订说明

针对 SGM 业务的不断发展、现代科学管理工具的不断开发以及对供应商综合能力提升的迫切需求，同时结合国家政策法规的相关要求，SGM 采购部对《上汽通用汽车对供应商质量要求的规定》进行了相关内容的修订和整合，并于 2014 年 12 月发布第三版。

欢迎各位 SQE、供应商或其他使用人员反馈您的意见或建议，有关意见或建议请反馈至上汽通用汽车采购部 SD 小组 。

上汽通用汽车采购部
供应商质量与开发科
2014 年 12 月 5 日

PREFACE

SGM requires that all suppliers must meet all requirements, which include TS16949 (the latest Edition), related reference manuals and GM Customer Specifics (except for inapplicability at GM AP). SGM suppliers must also follow GM Supplier Quality Statement of Requirements and applicable items of GM General Procedures (for example GP5, GP8, GP9, GP10, GP11, GP12, etc...)

This SQ SOR, which is part of SGM supplier quality procedures and regulations, summarizes SGM's basic requirements for supplier quality, aiming to help SGM suppliers understand and perform more effectively SGM related requirements.

For more details, please refer to ISO/TS 16949 series, GM Global APQP related documents and other SGM procedures accordingly.

Any question, please contact the related SQE.

We welcome all SQE, suppliers and other people feed back any modification advices to SGM SDE GROUP.

2nd Edition Explanation

For meeting the latest edition of GM Global APQP requirements and SGM current business development, SGM Purchasing Department revises "SGM Supplier Quality Statement of Requirements" based on SGM E-Procurement System and releases 2nd edition of SGM SQ SOR in Jan. 2008.

Welcome any SQE, suppliers or other people feed back any modification suggestion or comments to SGM SDE GROUP.

Supplier Quality & Development Section
Purchasing Department, SGM
Jan. 1st, 2008

3rd Edition Explanation

To aim at the continuous development of SGM businesses, the continuous exploiture of the modern tools of scientific management and the exigent demand of suppliers' integrated capability improvement, and to combine with the relevant requirements of the state policies and regulations, SGM Purchasing Department revises and integrates "SGM Supplier Quality Statement of Requirements" and releases 3rd edition of SGM SQ SOR in Dec., 2014.

Welcome any SQE, suppliers or other people feed back any modification suggestion or comments to SGM SD Group.

Supplier Quality & Development Section
Purchasing Department, SGM
Dec. 5th, 2014

Revisions
修订记录

July, 2015, the major revisions of the 3.1st edition:
2015 年 7 月第 3.1 版主要修订内容：

1. Delete requirement of supplier shall update and maintain their specific duns' code to the CCC China Compulsory Certification requirements in EP&GQTS (Global Quality Tracking System) – Supplier Certification(1.3).
   删除中国强制性产品认证（CCC）供应商要求中“供应商必须在 EP/GQTS 更新和维护其 duns 号的 CCC 认证信息”（1.3）。

2. Add traceability of Direct Serialized Part and Lot Control Part in SGM Specific SQ SOR List-Powertrain (1.6.7.2).
   在 SGM Specific SQ SOR PT 清单中增加特定零件和工艺的精确追溯和批次追溯要求（1.6.7.2）。

Catalogue

目 录

供应商易地生产

十七、 **New Business Hold**

停止新业务

十八、 **Yearly Excellence Supplier Evaluation**

年度优秀供应商评选

一、SGM Supplier Quality Statement
SGM 供应商质量声明：

1.1 Supplier Quality Base Requirements:

供应商质量基本要求：

1.1.1 This document is intended to be used in conjunction with and is in addition to the SGM General Standard Terms and Conditions.
此文件规定为与 SGM 一般条款同时使用。

1.1.2 All suppliers are expected to supply parts to SAIC General Motors with zero defects. Parts shall meet all engineering specifications and function with no abnormalities according to intent.
所有的供应商应该向 SGM 提供零缺陷的零件。 零件须满足所有工程规范和功能要求,以及顾客的其它特殊要求且不出现任何异常。

1.1.3 Funding is to be identified in the initial quote and subsequent quotes to reflect error occurrence detection (Poka Yoke, Error Proofing devices, etc) and defect outflow prevention to customers. Controls implemented at a later date are the financial responsibility of the supplier.
在首次报价和其后的报价中，供应商需要说明为检测缺陷 (防错装置等) 和防止缺陷流向顾客所需要的预算。供应商以后追加的控制手段，费用由供应商承担。

1.2 System Compliance, Specific Production Process Requirements:

体系法规符合性、特定生产过程要求：

1.2.1 All providers of a) production materials, b) production or after sale parts, or c) heat treating, plating, painting or other finishing services directly to SAIC General Motors must be certified to ISO/TS16949, ISO14001 and OHSAS18001 by a Certification Body (CB) recognized by the International Automotive Task Force (IATF) and have a current certificate available demonstrating compliance to GM supplements.
所有向上汽通用汽车直接提供 a)生产材料，b)生产或售后服务件，或 c)热处理、涂镀、油漆或其他加工服务的供应商必须通过 IATF 认可的 ISO/TS16949、ISO14001、OHSAS18001 标准的认证， 并且取得相应证书。

1.2.2 Effectiveness of the heat treating, the plating and the coating processes shall be demonstrated to meet the requirement of CQI-9 Heat Treat System Assessment, CQI-11 Plating System Assessment and CQI-12 Coating System Assessment published by AIAG respectively and SGM special requirement.
热处理、电镀、油漆过程必须分别满足 AIAG 发布的 CQI-9、CQI-11、CQI-12 要求及 SGM 的特殊要求。

1.2.3 Welding and soldering process shall be compliant with CQI-15 Welding System Assessment and CQI-17 Soldering System Assessment published by AIAG respectively.
焊接和钎焊加工必须分别满足 AIAG 发布的 CQI-15 和 CQI-17 要求。

1.2.4 If the suppliers do not certified to ISO/TS 16949 or ISO14001 and OHSAS18001, or they need construct new plants and new product lines to manufacture the parts being quoted, their quotation must include a defined certification attainment plan for further consideration. New supplier shall pass PSA, or the third party appointed by SGM will implement the special audits and the suppliers will take charge of the related cost.
供应商如果没有通过 ISO/TS16949 或 ISO14001 或 OHSAS18001 认证，或者这些供应商需新建工厂和生产线来制造报价的零件，供应商在报价时必须包括通过相关认证的详细计划。新供应商必须通过 PSA 后方可向 SGM 批量供货，否则将由 SGM 指定第三方进行特殊审核，相关费用由供应商支付。

1.3 China Compulsory Certification (CCC) Supplier Requirements:

中国强制性产品认证供应商要求：

It is the supplier's responsibility to contact China Quality Certificate Centre (CQC)for CCC activities and ensure all CCC related parts meet the China Compulsory Certification requirements (reference CNCA-02-063:2005). All saleable parts shall have a CCC marking after proper authorization. The SGM/GM math data or parts specific drawing general notes will have "Part Must Be China Compulsory Certification Compliant". Supplier shall update and maintain their specific duns' code to the CCC China Compulsory Certification requirements in EP&GQTS (Global Quality Tracking System) – Supplier Certification. A copy of the certificate for the part should be sent to SGM/GM Engineering before PPAP or when saleable status is attained also email to SQ_Cert@gm.com (must include the duns' code). Web-site: http://www.cqc.com.cn/english/index.htm

供应商必须联系 CQC 进行 CCC 认证工作并确保所有相关零件满足 CCC 要求（参考 CNCA-02-063:2005）。所有相关可销售零件必须带有经授权的 CCC 标志。在 SGM/GM 的数模或零件图纸上将包含“零件必须满足 CCC”的要求。零件的 CCC 证书在 PPAP 之前必须发送给 SGM/GM 的工程，或在达到 saleable 状态时也发给相应的 SQE（必须包含 duns 信息）。（参考网址 http://www.cqc.com.cn/english/index.htm）

1.4 Responsibilities for Repair, Replacement and Return of Household Automotive Products:

汽车执行“包修、包退、包换”政策要求：

1.4.1 Fast Response Requirement to 3R Products related suppliers

涉及“三包”的零件供应商必须确保的快速响应

Within 24 hours (Local Supplier) / 48 hours (Import Supplier) of receipt of SGM Quality Alert Notification (telephone or in writing):

收到 SGM 通知（电话或书面）的国产供应商在 24 小时 / 进口供应商在 48 小时内：

1) Establish the emergency conference call with SGM SQE;
   配合 SGM SQE 建立紧急电话会议机制；
2) Investigate the potential cause and implement the short-term containment in-house;
   在厂内排查潜在原因及采取短期遏制措施；
3) The defective parts will be sent by SGM within 24 hours upon receipt.
   SGM 会在收到失效件 24 小时内寄出。

1.4.2 Supplier must confirm the validity of the short-term containment within 24 hours upon receipt of defective part.

供应商收到失效件 24 小时内必须确认短期遏制措施有效性。

1.4.3 Supplier must finish analyzing and provide feedback on root cause and long-term countermeasure within 5 working days if it is the Tire 1 supplier's problem.

若为一级供应商本身原因，则 5 个工作日内必须完成根本原因及长期措施的分析和反馈。

1.4.4 Supplier must provide analysis plan (including the part transport breakpoint) within 24 hours and finish analyzing and feedback the root cause and long-term measure within 10 working days if it is the tier 2 or tier 3 suppliers' problem.

若为二、三级供应商问题，则供应商必须 24 小时内反馈分析计划（含邮寄节点），10 个工作日内完成根本原因及长期措施的分析和反馈。

1.4.5 Supplier must support SGM with emergency air transport and on-site analysis if necessary.

若有必要，供应商须支持 SGM 实施紧急空运并到失效现场进行问题分析。

1.4.6 SGM reserves the right to adjust the established response requirement and notify the supplier the response requirement. The supplier should execute the adjusted requirement strictly to ensure the parts fast response.

SGM 有权对上述响应要求进行调整并通知供应商，供应商应当严格执行调整后的响应要求以保证零件的快速响应。

1.5 SAIC General Motors Procedures and Reference Documents:

上汽通用汽车的程序和参考文件：

Suppliers are to adhere to the requirements contained in the following documents:

供应商必须遵守以下文件中所列的要求：

PROCEDURE 程序	**DOCUMENT 文件**
Advanced Product Quality Planning & Control Plan Reference Manual 产品质量先期策划和控制计划参考手册	AIAG Manual
Fundamental Statistical Process Control (SPC) Reference Manual 统计过程控制参考手册(SPC)	AIAG Manual
Measurement Systems Analysis (MSA) Reference Manual 测量系统分析(MSA)参考手册	AIAG Manual
Failure Mode and Effects Analysis (FMEA) Reference Manual 失效模式和影响分析(FMEA)参考手册	AIAG Manual
Production Part Approval Process (PPAP) Manual 生产件批准手册	AIAG Manual
Purchased Parts General Products Traceability Assurance Procedure 外购件一般产品可追溯性保证程序 Product Traceability Procedure(Bar code precise traceability)产品可追溯性程序(条形码精确追溯)	TS-070-020 TS-070-021
GP-5 Supplier Quality Processes and Measurements Procedure 供应商质量监控流程	GM1746
GP-8 Continuous Improvement Procedure 持续改进程序	GM1747
GP-10 Evaluation and Accreditation of Supplier Test Facilities 供应商检测设备的评价和鉴定	GM1796
GP-12 Early Production Containment 早期生产遏制	GM1920
Fixture Standards 检具要求标准	GM1925
GM Global Supplier Quality Manual 通用全球供应商质量手册	GM1927
GP-9 Run @ Rate 按节拍生产	GM1960
Key Characteristics Designation System (KCDS) 关键特性指示系统(KCDS)	GMW15049
Supplier Quality Weld Support Manual 供应商焊接质量支持手册	
Customer Care & Aftersales Specific:	
Shipping and Delivery Performance Requirements – Ship Direct 发运和运输要求-直接发运	
Packaging and Labeling Requirements – AC Delco and Accessories 包装和标签要求-AC Delco 和附件	
Supplier Injection Mold Technical Specification 供应商注塑模具技术要求	
Supplier Press Tool Technical Specification 供应商冲压模具技术要求	
Supplier Die-casting Die Technical Specification 供应商压铸模具技术要求	

Note: in case of conflict between SGM requirement and GM requirement, SGM requirement will prevail.
注：SGM 要求和 GM 要求出现不一致的情况下，必须首先满足 SGM 要求。

1.6 Quality Planning Requirements:

质量策划要求：

1.6.1 APQP: Suppliers must use an advanced product quality planning process that follows the GM APQP Project Plan (GM1927-1) and SGM related procedures that ensure production readiness with parts that meet 100% of the product's specifications.
APQP：供应商必须使用与 GM APQP 项目计划(GM1927-1)以及 SGM 相关程序相一致的产品质量先期策划流程，以 100%满足产品规范的零件来确保生产准备就绪。

1.6.2 **Operator Training:** Training plan must address new operators and current operators performing new functions. Training status should be displayed in the area of the manufacturing process. Training plan should ensure function requirements and training time for new functions.

员工培训：培训计划必须强调对新进员工和转岗员工的培训，培训状态应该在制造区域展示出来。***明确各岗位的上岗要求以及上岗所需要的培训时间***

1.6.3 **Error Proofing:** Suppliers shall implement error proofing strategies for the control of materials, processes and labeling for all products provided to SGM. Supplier shall implement error proofing techniques to ensure that mistakes are detected and corrected before becoming a defect (i.e. make it impossible to produce defective items even if an error occurs). The supplier must error proof to a level where it is not possible to ship defective products to SGM.

防错：供应商应该执行防错策略以确保所有提供给 SGM 产品的材料，过程和标签处于受控状态。 供应商应该运用防错技术以确保产生缺陷之前及时发现并纠正错误（例如：采用“不可制造”的防错技术）。供应商的防错必须达到一定的水平，以防止缺陷零件发送到 SGM。

1.6.4 **Traceability:** A Traceability scheme shall be developed in accordance with regional and divisional requirements. Traceability scheme may include manufacturing date code and lot control. Items to be traced shall be determined in during the APQP process.

可追溯性：可追溯性计划应该根据不同地区的要求来开发。可追溯性计划可以包括制造日期编码和批号控制。可追溯性项目应该在 APQP 过程中确定。

1.6.5 **Verification of Customer Used Features:** Customer-used part features (examples: fit, form, function, mating surfaces, etc.) shall be incorporated in the PFMEA, process control plan, layered audits, and error/mistake proofing. Additional items to be checked shall be defined during the APQP process. These features should be verified at a frequency of 100%.

顾客使用特性的验证：顾客使用特性：(例如：配合， 形状，功能，匹配面等)应该包括在 PFMEA，过程控制计划，分层审核和防错中。附加项目的检查应该在 APQP 过程中详细说明。 这些特性应该 100%加以验证。

1.6.6 **Inspection Fixtures and Gages Requirements:**

检具要求：

1.6.6.1 Supplier to assume the gage construction orientates the part in vehicle position unless Supplier Quality Engineer approves a deviation.
除非 SQE 批准此项偏差，供应商应根据零件的装车位置来制造检具。

1.6.6.2 Gage designs shall be approved by the Supplier Quality Engineer or the appropriate customer gage approval group prior to the start of fixture construction (for your regional requirements, contact your supplier quality engineer). Gage designs shall incorporate approved GD&T datum schemes and gages/fixtures must be capable to dimensionally evaluate parts.
SQE 或合适的顾客检具认可小组应在检具制造开始之前(与 SQE 联系所在地区要求)对所有检具设计进行认可。检具设计应该包括认可的 GD&T 基准方案以及检具必须具备评价零件尺寸的能力。

1.6.6.3 Supplier shall have hand apply fixtures for openings where assembly plant or sequencer/subassembler will install something that impacts a final vehicle specification (e.g. trim plates, extension panel, grilles, glove box door, etc.).
针对主机厂或排序供应商/分总成供应商需要安装一些对最终整车匹配规范有影响的分总成（例如：内饰板，延伸板， 格栅，手套箱门等）的开口配合处，供应商应设计制造手持式检具。

1.6.6.4 Supplier shall have the ability to check a completed assembly. Sub-contractors shall also have the ability to check component parts. Any cubing or build fixture shall have the ability to demonstrate fit to adjoining parts and attachments.
供应商应该具备检测整个总成的能力。分供方也应该具备检测分零件的能力。任何检具应该能够检测与其他零件相匹配的尺寸。

1.6.6.5 Appropriate functional testing and final inspection to ensure product performs as designed under actual vehicle conditions.
使用适当的功能检测和最终检测以确保产品在实际的车辆状态下符合设计要求。

1.6.6.6 Supplier shall ensure that fixtures are procured in a timely manner to meet major program benchmarks (i.e. first shots, GP-11, PPQP (Preproduction Part Quality Process)/PPO (Pre-Production Operations) Build Shop events, Functional evaluations, and PPAP.) Supplier shall, at a minimum, have a CMM (coordinate

measurement machine) holding fixture available for the inspection of first parts off prototype and production tooling.
供应商应该确保及时完成检具来满足项目的主节点要求（例如：首模零件、GP-11、PPQP/PPO 造车、功能评估,和 PPAP）。供应商应该至少使用 CMM(三坐标测量机)测量支架，检测样件工装和生产工装制造的首件。

1.6.6.7 Checking fixture should be finished according to SGM's requirements (for example, GM1925) and scheming time node. SGM checking fixture engineer should approve checking fixture' concept, design and manufacturing.
检具必须按 SGM 的要求（如 GM1925）完成，并按规定的时间节点，由 SGM 的检具工程师进行检具概念认可、设计认可和制造认可。

.

1.6.6.8 Checking fixture suppliers' selection and sourcing shall comply with the SGM's centralized sourcing strategy of checking fixture. If recommended supplier is a new supplier that is not in the centralized sourcing supplier list approved by SGM, the supplier must be approved through the evaluation of SGM checking fixture before sourcing.
检具供应商选择必须参照 SGM 检具集中采购策略执行定点工作。若零件供应商推荐不在 SGM 认可的集中采购供应商清单上的新检具供应商，必须提交 SGM 检具小组评估认可。

1.6.7 **Part & Process Specific Supplier Quality SOR:**
特定零件和过程供应商质量 SOR：

1.6.7.1 Supplier must comply with all requirements of SGM Part & Process Specific SQ SOR when applicable. Compliance to the Part-Specific Quality & Process SOR is required for PPAP full approval. Any permanent deviation to a Part-Specific Quality & Process SOR must be authorized by the SGM Supplier Quality & Development Director.
适用时，供应商必须满足所有 SGM 特定零件和过程供应商质量 SOR 的要求。只有满足这些要求，才可能获得 PPAP 的完全批准。任何与特定零件质量和过程 SOR 的永久偏差必须获得 SGM 供应商质量与开发总监的批准。

1.6.7.2 SGM Part & Process Specific SQ SOR List
SGM 特定零件和过程 SQ SOR 清单

SGM Specific SQ SOR List-Vehicle

No.	Commodity	Classification	分类	Related Parts / Processes	涉及零件/工艺
1	BIW	Process	工艺	Body&Exterior Stamping Parts	冲压
2	BIW	Part	产品	Hinge and Check-link	铰链限位器
3	BIW	Part	产品	Lockset Assembly	锁机构装配
4	BIW	Process	工艺	Body Welding	焊接
5	BIW	Process	工艺	Spin Riveting	旋铆
6	BIW	Management	管理	BODY Tier 2 Parts Dimension Matching	冲压子零件尺寸匹配
7	BIW	Process	工艺	TOX Riveting	TOX 铆接
8	BIW	Process	工艺	Hot Riveting	热铆
9	EXT	Process	工艺	Ext-products Except for Sunroof	外饰零件
10	EXT	Process	工艺	High Gloss Injection Parts	高光注塑件
11	EXT	Part	产品	Module ASM-SUN RF	天窗
12	FUN	Part	产品	Lamp	车灯
13	FUN	Part	产品	Windows Regulator	摇窗机
14	FUN	Part	产品	Glass	玻璃
15	FUN	Part	产品	Exterior Mirror	外后视镜

16	FUN	Part	产品	Interior Mirror	内后视镜
17	FUN	Part	产品	Seal	密封条
18	FUN	Part	产品	Wiper system	雨刮系统
19	INT	Part	产品	Interior Lighting	内饰灯带
20	INT	Part	产品	Clip Spring	遮阳板卡簧
21	INT	Part	产品	Interior Function	功能件
22	INT	Part	产品	Speaker Cover	衣帽板喇叭罩盖
23	INT	Part	产品	Cupholder	杯托
24	INT	Part	产品	Spring	弹簧
25	INT	Technique	技术	PPAP master	色板管理
26	INT	Management	管理	Management Process of DB parts development	DB 零件开发管理流程
27	SAF	Part	产品	Seat Armrest	座椅后排扶手
28	SAF	Part	产品	Steering Theel	方向盘
29	SAF	Part	产品	Seat Plastic	座椅塑料件
30	ELEC	Part	产品	harness Terminal	线束
31	ELEC	Part	产品	Radio ICS	面板
32	ELEC	Part	产品	Battery ASM	电池
33	ELEC	Part	产品	Generator	起动机
34	ELEC	Part	产品	Speaker	扬声器
35	ELEC	Part	产品	Cluster	仪表、开关
36	HVAC	Part	产品	Control Panel	空调控制头
37	HVAC	Part	产品	Electrical Cooling Fan	冷却风扇
38	HVAC	Part	产品	Cooling Module	散热器和冷凝器
39	HVAC	Part	产品	Coolant Hose	冷却水管
40	HVAC	Part	产品	HVAC Modules	空调箱壳体&电机
41	HVAC	Part	产品	AC Line	空调管的质量要求
42	HVAC	Management	管理	Carry Over parts requirment	Carryover 零件
43	CHA1	Part	产品	ABS/ESC	ABS/ESC
44	CHA1	Part	产品	Brake-System-Caplier	制动卡钳
45	CHA1	Process	工艺	Machining	机加工
46	CHA1	Part	产品	STEERING	转向系统零件
47	CHA1	Part	产品	Bar Code	条码标签管理
48	CHA1	Part	产品	Spring and Stabilizer Bar	稳定杆&弹簧
49	CHA1	Part	产品	Shocks and Struts	减震器和减震支柱
50	CHA1	Part	产品	Wheel	铝轮
51	CHA1	Process	工艺	Rubber Mixxing	密炼
52	CHA1	Part	产品	Tire	轮胎
53	CHA1	Management	管理	One Supplier Two Location Requirements	1 家供应商多个工厂生产同一零件
54	CHA1	Part	产品	Fastener	紧固件
55	CHA2	Technique	技术	The application of fasteners for chassis supplier	底盘类供应商的紧固件应用
56	CHA2	Part	产品	Half Shaft	传动轴
57	PTI	Part	产品	Structure	结构件
58	PTI	Part	产品	B&F Pipe	制动硬管
59	PTI	Part	产品	Exhaust (Cold end)	排气管
60	PTI	Part	产品	Fuel Tank	塑料邮箱

61	PTI	Part	产品	Shifter Cable	排档拉索
62	PTI	Part	产品	Shift	自排挡
63	SD	Management	管理	GP-8	GP-8
64	SD	Management	管理	QSB	QSB
65	SD	Management	管理	Greening the Supply Chain	绿色供应链
66	SD	Management	管理	Supplier Electronic Management	电子化/追溯性
67	TS	Technique	技术	Texture Approval	皮纹认可
68	PV	Technique	技术	GP-10	GP-10
69	PV	Process	工艺	Heat Treat	热处理
70	PV	Process	工艺	Anodic Oxidation Coating on Aluminum	铝的阳极氧化涂层
71	PV	Process	工艺	Cathodic Electrocoating	阴极电泳涂装
72	PV	Process	工艺	Physical Vapor Depostion Plating	物理气相沉积（PVD）
73	PV	Process	工艺	Zinc and Zinc Alloy Plating	镀锌和锌合金
74	PV	Process	工艺	Decorative Copper/Nickel/ Chrome Plating	装饰性铜/镍/铬电镀
75	PV	Process	工艺	Decorative Painting	装饰性喷涂
76	PV	Technique	技术	AAR	外观零件特殊要求
77	PV	Technique	技术	Requirement of Parts Inspection	零件抽检

SGM Specific SQ SOR List-Powertrain

No.	Commodity	Classification	分类	Related Parts / Processes	涉及零件/工艺
1	ENG/TRA	Process	工艺	Die Casting Process	压铸工艺
2	ENG	Part	产品	Semi-Permanent Mold Cylinder Heads	半金属模缸盖
3	ENG	Part	产品	Plastic Intake Manifold Assembly	塑料进气歧管
4	ENG	Part	产品	Aluminium Alloy Casting Piston	铸造铝合金活塞
5	ENG/TRA	Part	产品	Powertrain Fasteners	动力总成紧固件
6	ENG	Part	产品	Rubber Lip Oil Seal	橡胶唇口油封
7	ENG	Part	产品	Rod Asm-Conn	活塞连杆
8	ENG	Part	产品	Cast Iron Cylinder Block	黑色缸体
9	ENG	Part	产品	Crankshaft Machining Process	曲轴机加工
10	PTEC	Part	产品	Fuel Injector Cleanliness Control	喷油器清洁度控制
11	ENG	Part	产品	Camshaft	凸轮轴
12	ENG	Part	产品	Low Tention Rubber Shaped Pipe	橡胶低压异形管
13	ENG	Part	产品	Oil Pump	油泵
14	ENG	Part	产品	Oil Filter Asm	旋入式机油滤清器
15	ENG/TRA	Process	工艺	Leakage Detection System	泄漏检测系统
16	ENG/TRA/PTEC	Management	管理	Traceability	动力总成零件的精确追溯和批次追溯工艺要

1.7 Quality Control Requirements:

质量控制要求：

1.7.1 **Containment:** All non-conforming and suspect material must be controlled. Method must be clearly defined. Visual controls should be implemented. All non-conforming material must be segregated and identified. GP-12 shall be implemented from first sample submission. Upon request of SGM additional levels of proactive containment may be required. When a problem is reported it is expected that all suppliers implement effective and immediate containment and comply fully with GP-5 requirements otherwise controlled shipping may result.

遏制：所有不合格和可疑材料必须被控制。必须清楚地定义其方法。应该执行目视控制。所有不合格材料必须被隔离和标识。首件交样开始，GP-12 应该被执行。按照 SGM 的要求，附加的遏制措施可能被要求执行。当问题发生，供应商要立即采取有效的遏制措施，并完全遵守 GP-5 的要求否则可能导致受控发运。

1.7.2 **Quality Performance Metrics:** Each Supplier's Senior Management shall commit to maintain and continuously improve quality. EP and GQTS (Global Quality Tracking System) monitors performance data for PPM, PR&Rs, Controlled Shipping Level I / II, Major Assembly Plant Disruptions, ISO/TS16949 / ISO14001 / OHSAS18001 Certifications. Suppliers shall monitor their quality performance on line through EP and GQTS.

质量表现：每一家供应商的高级管理层应该承诺保持质量的持续改进。EP（电子采购系统）和 GQTS（全球质量跟踪系统）监控供应商的 PPM,、PR&Rs、一级/二级受控发运、主机厂停线记录、ISO/TS16949 / ISO14001 / OHSAS18001 的认证等数据或信息。供应商应通过 EP 和 GQTS 在线监控其质量表现。

1.7.3 **Production Quality:**

生产质量：

All suppliers are required to have effective manufacturing practices and procedures to ensure a continuous flow of defect free parts into SGM production facilities.

所有供应商应具备有效的制造程序以确保**无缺陷**的零件连续地运送到 SGM 生产线上。

1.7.4 **Current Product Improvement Process (CPIP):** Suppliers shall actively participate in the timely resolution of problems identified by GM's / SGM's CPIP. Suppliers shall provide appropriate corrective action documentation and project status updates as requested.

产品改进过程(CPIP)：供应商应该积极参与解决 GM / SGM 的 CPIP 系统识别的问题。供应商应该按要求提供适当的纠正措施及项目状态更新。

1.8 Capacity Planning and Manufacturing System Requirements:

产能计划和制造系统要求：

1.8.1 Supplier shall have the ability to design and install adequate capacity to meet the daily contract requirements in one production day while operating under normal operating conditions and under total customer load.

正常生产和顾客满负荷条件下，供应商的设计和安装产能需满足每生产日合同产能。

1.8.2 Supplier must comply with all requirements of GP9 Run at Rate process including completion of the GM1960 run at rate workbook.

供应商须符合 GP9 流程的所有要求，完成 GM1960.

1.8.3 Suppliers are required to demonstrate their ability to meet SGM contractual requirements through both system capacity analysis and actual R@R production to verify accuracy of the analysis.

要求供应商按节拍生产，验证系统产能分析的正确性，说明其满足 SGM 合同要求的能力。

1.8.4 Supplier shall confirm in writing that all subcontractors supplying parts or services meet all quality and contractual requirements for the manufacturing of the SGM contracted components to the SGM Tier 1 or VAA/Sequencing.

供应商需书面确认其所有分供方能满足所有质量和合同要求，满足 SGM 一级供应商零件制造或 VAA/排序的要求

1.9 Continuous Improvement Requirements:

持续改进要求：

1.9.1 GP-8:

持续改进：

Supplier shall follow SGM GP-8 and effectively execute continuous improvement activities to carry out PDCA and focus on operability. Supplier shall effectively solve the problems, to overcome the internal weakness and to establish the scientific methods and effective self-motivating continuous improvement mechanism.

供应商应按照 SGM GP-8 有效执行相关持续改进任务，贯彻 PDCA，关注可操作性、可执行力；应有效解决问题，攻克薄弱环节，建立科学方法及健全有效的自主持续改进机制。

1.9.2 Quality System Basic:

质量系统基础：

Supplier shall build its quality management system and related documentation in accordance with GM / SGM QSB requirements. New Suppliers must meet QSB requirements before APQP Gate Review #3.

供应商应该按照 GM 的质量系统基础要求来建立其质量管理体系以及相关文档。新供应商须在 APQP Gate Review #3 前满足 QSB 要求。

1.9.3 Intelligentizing (Including project management, production management, cost management, logistics management, etc.):

智能化（涵盖项目管理、生产管理、成本管理、物流管理等方面）：

Supplier should understand the intelligent management is quite necessary and should establish the management system through automation, informationizing and intelligentizing.

供应商需理解智能管理的必要性并持续推进自动化、信息化、智能化。

1.9.4 Quality Culture to the Team:

质量文化落地班组：

Supplier should enhance the team building and management and ensure the all-around and practical company quality culture. Supplier should make GP-8, QSB, etc. into actual effect.

供应商应加强班组建设，全员参与、全面实践、全速推进，切实保证公司质量文化建设的全面性和实效性，使 GP-8、QSB 等方法工具真正落地。

1.9.5 SGM SQE and/or SDE can organize improvement workshops (such as cost improvement, quality improvement, onsite improvement, 6 Sigma projects, etc.) in suppliers' plants according to their quality performance and improvement opportunities. Suppliers shall carry out related resource and implement improvement activities positively.

SGM SQE 和/或 SDE 可以根据供应商的质量表现和改进机会，在供应商现场组织相关改进工作的研讨会（如成本改善、质量改善、现场改善、6 Sigma 项目等）。要求供应商落实相关资源，积极执行相关改进工作。

1.10 Advanced Problem Solving Requirements:

高级问题解决工具要求：

Suppliers are required to demonstrate their capability to solve complex problems using advanced problem solving techniques such as the "Red X" system at GM.

供应商应证明其具备运用高级问题解决技术（例如 GM "Red X"系统）来解决复杂问题的能力。

1.11 Production Support Requirements:

生产支持要求：

1.11.1 On-Site support during pre-production and launch: Upon request of SQ or SGM Plant, Supplier will provide on-site support during all pre-production build phases and production launch activities.

在样车生产和试生产阶段的现场支持：根据 SQ 或 SGM 工厂的要求，在整个样车生产和试生产阶段，供应商应该提供现场支持。

1.11.2 Supplier contacts for all shifts: Supplier shall designate a specific supplier representative that will support each of the SGM Plant's shifts. At a minimum the supplier designate should have the responsibility to:
供应商与 SGM 生产各班保持联系：供应商应该指派明确的代表来支持 SGM 工厂的每一班生产。供应商指派的代表应至少负责以下方面：

1.11.2.1 Implement immediate countermeasure to contain discrepant parts and to confirm that defective parts are not shipped to SGM Plant.
立即对缺陷零件采取遏制措施以确保缺陷零件不会发送到 SGM 工厂。

1.11.2.2 Approve SGM Plant's/SQE's requests for rework and sort.
认可 SGM 工厂/SQE 关于返工和筛选的要求。

1.11.2.3 Coordinate and provide resources to rework and sort parts.
协调提供返工和筛选零件所需的必要资源。

1.11.2.4 Provide sub-assemblies / components for required repair, related to quality issues.
提供分总成/零件用于由相关质量问题所引起的返修。

1.11.2.5 Provide clear information regarding any defective parts in-route to SGM Plant (how to identify defect, disposition guidelines).
提供正在运往 SGM 工厂途中，有关缺陷零件的明确信息(如何识别缺陷，处置方针)。

1.11.2.6 Coordinate special delivery of certified OK parts.
协调合格零件的特殊运输。

1.11.3 **Quality data:** Supplier must provide quality-related data (e.g. historic inspection data, first time quality, rejected rate) to SGM upon request. This data may be required to determine the quality problems trends and root causes at the SGM Manufacturing or Assembly Plants.
质量数据：若 SGM 有要求，供应商必须提供相关的质量数据（例如历史检验数据、一次合格率、废品率）给 SGM 所要求的部门。这些数据可能在 SGM 制造厂或总装厂在确定质量问题的趋势和根本原因时需要用到。

1.11.4 **The key dimensions data**: electronic systems shall be established and achieve the following functions aiming at all white body parts, ABC pillars, door trims, IPs, glove boxes, CCBs, sunroofs, etc.:
关键尺寸数据：针对各白车身零件、ABC 立柱、门内饰板、IP、手套箱、CCB、天窗等配合零件必须建立电子系统，并达到以下功能：

Data statistical analysis
数据统计分析
Automatic alarm
零件数据出现异常，系统自动报警
Data change record and change point files establishment in the system
记录数据变化，并在系统中建立变化点档案；
Data sharing with SGM
同 SGM 数据共享。

1.12 Tier 1 Responsibilities (including suppliers of complex systems/sub-assemblies):
一级供应商职责：

1.12.1 Tier1 supplier is responsible for implementing AIAG and SGM requirements for all components of the assembly including directed buy parts unless otherwise specified by SGM Supplier Quality & Development Director. SGM may assign an SQE to work with the tier1 on selected sub-supplier components.
除非 SGM 供应商质量与开发总监批准，供应商负责对所有的装配零件包括直接采购的零件坚持执行 AIAG 和 SGM 的要求。SGM 可以自行决定指派一名 SQE 与一级供应商共同研究零件的相关问题。

1.12.2 Tier1 supplier shall choose the key tier2 suppliers from *the Approbatory List of Key Tier2 Supplier Technic Review* approved by SGM. If needed, tier2 supplier recommended by tier1 shall get the technic review approbation according to SGM procedure.

一级供应商原则上必须在 SGM 批准的《关键二级零件供应商技术评审认可清单》中选取关键二级零件分供方。特殊情况，一级供应商推荐的二级供应商必须按 SGM 流程获得技术评审认可。

1.12.3 Tier1 supplier need to take effect to evaluation and validation system for tire2 supplier and push them do continuous improvement
一级供应商需要对其分供方建立评价和验证系统，并推进持续改进工作。

1.12.4 Tier1 supplier must follow the 4th item: Added Special Requirements for VAA (Value Added Assembly) Supplier, if its Tier2 supplier is located by SGM.
对于有 SGM 定点二级供应商的情况，其一级供应商必须遵照第四条款“对 VAA（集成供货）供应商的特殊补充要求”进行相关业务操作。

Note：All tier one suppliers is responsible for the sub-contractors management/or the product quality of sub-contractors.
注：所有一级供应商必须对分供方的管理/或分供方的产品质量负责。

1.13 Systems and Procedures Access:

体系和程序文件获取：

1.13.1 Suppliers shall have Internet access to effectively communicate with SAIC General Motors.
供应商应该通过网络与 SGM 进行有效的联系。

1.13.2 Information regarding Automotive Industry Action Group (AIAG) documents can be found at the AIAG Website (www.aiag.org).
AIAG 发布的文件可通过网站（www.aiag.org）获取。

1.13.3 GM Supplier Quality procedures and documents can be accessed through the GM Website (www.gmsupplypower.com).
GM 供应商质量程序和文件可通过网站（www.gmsupplypower.com）获取。

1.13.4 SGM Supplier Quality procedures and documents can be accessed through SGM Electronic Procurement (EP) System (http://www.shanghaigm.com/eProc_SP/eProcSP_Web/MainServlet?action=SYSTEM_PG_Welcome).
SGM 供应商质量程序和体系文件可通过电子采购系统（http://www.shanghaigm.com/eProc_SP/eProcSP_Web/MainServlet?action=SYSTEM_PG_Welcome）获取。

1.13.5 SGM Approbatory List, Working Forms, Procedures, etc. can also be obtained from SGM relevant SQE in charge.
SGM 认可清单、工作用表、程序文件等也可通过 SGM 主管 SQE 获取。

二、 Supplier Quality Statement of Requirements Powertrain Addendum
动力总成供应商质量声明补充要求

2.1 Process Capability & Control Requirements
过程能力及控制要求:

CHARACTERISTIC 特性	PPAP Requirement PPAP 要求	Ongoing Production 量产
KPC	Xp ≥ 2.0 Xpk ≥ 1.67	Xp ≥ 2.0 Xpk ≥ 1.5 Control charting required 控制图
PQC	Xp ≥ 2.0 Xpk ≥ 1.67	Xp ≥ 2.0 Xpk ≥ 1.5 Control charting required 控制图
Standard Product Characteristics 标准产品特性	Xp ≥ 1.33 Xpk ≥ 1.00 (Documentation required only for DR Characteristics) （仅 DR 特性需有过程能力数据支持）	Xp ≥ 1.33 Xpk ≥ 1.00 (Control charting required only for DR Characteristics) （仅 DR 特性需有控制图支持）
Surface finish, and/or hardness 加工表面粗糙度和/或硬度	Xp ≥ 1.0 Xpk ≥ 1.0 (Documentation required only for DR Characteristics) （仅 DR 特性需有过程能力数据支持）	Xp ≥ 1.0 Xpk ≥ 1.0 (Control charting required only for DR Characteristics) （仅 DR 特性需有控制图支持）

Xp=Cp & Xpk=Cpk: for stable processes with normal distribution of measured values 针对正态分布的稳定过程

Xp=Pp & Xpk=Ppk: for stable processes with non-normal distribution of measured values 非正态分布的稳定过程

Standard Product Characteristic – are characteristics where reasonably anticipated variation is unlikely to significantly affect function or performance of the product. Some Standard Product Characteristics may be designated as Documentation Required (DR)
标准产品特性——是指那些基本可预期的偏差不太可能严重影响产品的功能或性能的特性。部分标准(产品)特性可指定为 DR 特性。

Documentation Required (DR) - Those standard characteristics which are important to function and where reasonably anticipated variation outside of the specification is likely to have

moderately negative consequences. This designation shall also be applied to those characteristics which have been designated by Supplier Quality as “pass through”.
DR— 是指对功能重要的标准特性，当这些特性出现基本上可预计的超出规范的偏差时，可能会产生一些温和（或普通）的负面结果。DR 也可以赋予那些被 SQ 指定为“通过特性”的特性。

If during Product / Process development you believe there will be difficulty meeting the above capability, you MUST immediately notify your Supplier Quality Engineer (SQE) and develop a plan to assure compliance and/or obtain formal written approval to deviate from the capability requirements.
产品/过程开发中，如果确信难以满足以上能力要求，必须及时通知 SQE 并制定保证满足要求的计划，和/或获得允许偏离能力要求的正式书面批准。

2.2 Cleanliness Requirements:
清洁度要求：

Cleanliness requirements for all parts will be defined in the Product Engineering Statement of Requirement and on the part print drawing. Part and process cleanliness shall be considered during the development of the PFMEA. Appropriate actions shall be taken during the APQP process as driven by the PFMEA RPNs. The supplier shall use GMW16037 Test Method to Quantify Cleanliness of Powertrain Components.
所有部件的清洁度要求会在产品设计的 SOR 及图纸上注明。PFMEA 开发过程中应该考虑零件和过程中的清洁度。根据 PFMEA 的 RPN，在 APQP 过程中采取适宜的措施来保证清洁度。针对 Powertrain 的零件，供应商必须使用 GMW16037 的测试方法量化清洁度数据。

2.3 Process Change Request Requirements:
工艺过程变更申请要求：

2.3.1 Supplier shall apply to customer for process change without any product design impact according to supplier process change request (SPCR) procedure. Process change request shall be submitted to SGM according to SGM SPCR procedure and requirement, if the PPAP approval of related part is released by SGM. Process change of other parts whose PPAP are approved by other GM regions shall be requested to corresponding GM regions with the applicable procedure.
对于所有动力总成部件的工艺更改，若其不涉及影响产品设计特征，供应商必须按照工艺更改申请流程向客户进行申请。其中上汽通用汽车负有 PPAP 责任的零件需要按照上汽通用汽车供应商工艺更改申请(SPCR)流程向上汽通用汽车进行申请；由 GM 其他区域负责进行 PPAP 的零件按照该区域的相应流程向相应区域进行申请。

2.3.2 SGM Powertrain Supplier Process Change Request (SPCR) applies to the following, but not limited to the following scope:
上汽通用汽车动力总成供应商工艺变更申请的适用于下述但不限于下述范围：

- Production following any Changes in process or method of manufacture
  生产过程或工艺更改。
- Correction of a discrepancy on a previously submitted part
  原零件不符合项更正。
- Production from tooling and equipment transferred to a different plant location or from an additional plant location.
  工装设备移动，异地生产。
- Production following refurbishment or rearrangement of existing tooling or equipment
  工装设备重大翻修或维护。
- Change in source for subcontracted parts, materials, dunnage or services (e.g. heat-treating, treating, plating, painting .. etc)
  二级供应商处的变更，包括二级外购零件、原材料、生产耗材或服务供应商的变更。(例如：热处理，镀层，涂层等）
- Product re-released after tooling has been inactive for volume production for twelve months or more
  工装设备停用一年后的生产件重新批准
- Following a customer request to suspend shipment due to a supplier quality concern

因质量问题，应客户要求暂缓零件发运。

- Production from new or modified tools (except perishable tools), dies, molds, patterns…etc.
  使用新工装或修改工装（除易损工装），模具等，包括备用模具和更换模具。

三、 Supplier Quality Statement of Requirements Vehicle Addendum
整车供应商质量声明补充要求

3.1 Requirements 要求

3.1.1 Mean Shift of the Specifications
均值偏移

For all features Identified on a Component/Assembly GD&T, the combination of process capability (based on CP 1.67) and mean shift with CPK defined below must demonstrate parts to be within tolerance. If a mean shift exists that prevents a supplier from meeting part tolerances with CPK requirements below, tooling must be corrected to enable compliance to specification.
对于所有标注在部件/总成 GD&T 图纸上的特性，无偏移的过程能力（基于 CP 1.67）和有均值偏移的过程能力 CPK 值必须达到零件在公差范围内的水平。如果均值偏移导致供应商无法满足下表的 CPK 要求，必须修模以满足规范要求。

3.2 Capability 能力

For Key Product Characteristics (KPCs) and Product Quality Characteristics (PQCs), reference GMW 15049 and AIAG PPAP Manual.
对 KPCs 和 PQCs 的要求可参见 GMW 15049 及 AIAG PPAP 手册。

	6σ Requirement	
CHARACTERISTIC	PPAP	On- going Production
KPC Special Characteristics / Extra Care	Cpk & Ppk ≥ 1.67 Full Approval Cp & Pp ≥ 1.67 Cpk & Ppk ≥ 1.33 Acceptable	Cp & Pp ≥ 1.67 Cpk & Ppk ≥ 1.67 Full Approval Cp & Pp ≥ 1.67 Cpk & Ppk ≥ 1.33 Acceptable
PQC Special Characteristics / Extra Care	Cp & Pp ≥ 1.67 Cpk & Ppk ≥ 1.0 Full Approval Cp & Pp ≥1.33 Cpk & Ppk ≥ 1.0 Acceptable	Must be within Specification
Standard Product Characteristics	One Sample checked, Must be within Specification	Must be within Specification

If during Product / Process development you believe there will be difficulty meeting the above capability, you MUST immediately notify your Supplier Quality Engineer (SQE) and develop a plan

to assure compliance, modified Control Plan normally providing for 100% inspection, and/or obtain formal written approval to deviate from the capability requirements.
如果在产品/过程开发时认为很难达到上述能力要求时，必须尽快通知 SQE，并制定确保产品满足要求的计划、经修改的包含 100%全检的控制计划和/或获得允许偏离能力要求的书面批准。

四、 Added special requirements for VAA (Value Added Assembly) Supplier
对 VAA（集成供货）供应商特殊补充要求

4.1 VAA supplier shall responsible for the consignment parts quality control.
VAA 供应商负责分装零件的质量管理责任。

4.2 VAA supplier should have the Matching Process, do the matching and function validation according to the Matching Process and CVIS\DTS, and submit the information to SGM SQE and PE after first analysis and estimation to support to complete the evaluation and solution of advanced quality and function problem. VAA supplier should establish the audit process to check and validate the integration matching quality and function in launch phase.
VAA 供应商应建立尺寸评估流程，在新项目开发阶段，按照尺寸评估流程并根据产品的 CVIS\DTS，对整个总成进行匹配及功能验证，并进行问题初步分析和判定，将匹配、功能信息及时传递给 SGM SQE 和 PE，协助完成前期质量和功能问题的评估和解决。在新产品 LAUNCH 阶段，建立产品 AUDIT 流程，评审、检验总成的匹配质量和功能。

4.3 During new program launch phase, any part quality and function problem of SGM purchasing parts should be alarmed by VAA supplier, and should be record to single issue list, which is the audit content of quality valve.
在新项目开发阶段，VAA 供应商应将 SGM 采购零件的质量和功能问题及时提交 SGM 报警，并将此类零部件质量和功能问题列入单一问题清单，作为项目各质量阀的评审内容。

4.4 Unless waived by SGM, the Value Added Assembler should participate the PPAP of the individual components, and is responsible for control of those within their facility.
除非 SGM 有另外规定，VAA 供应商需参与单个部件的 PPAP，并负责自己工厂内零件的 PPAP。

4.5 VAA supplier shall perform SGM parts unboxing job with the requirements of <Operation Process and Management Rules of Consignment (VAA)>.
VAA 供应商如需要对 SGM 提供的零件进行开箱操作，则 VAA 供应商应严格按照《Consignment（VAA）供应商物流操作方法及管理制度》执行。

4.6 If SGM direct sourcing parts have quality problem, VAA supplier should do the analysis job to investigate the problem and take containment measurements for SGM parts normally in 48 hours. After 48 hours, VAA supplier or SGM SQE will ask supplier or reworking supplier to take containment measurement, the cost of which will be levied on supplier.
SGM 提供的零件发生问题，VAA 供应商应进行问题的分析调查,并采取短期遏制措施, 一般不超过 48 小时。超过 48 小时，由 VAA 供应商或 SGM SQE 拉动供应商或返修供应商实施短期遏制措施，费用由零件供应商承担。

4.7 The integration part that has been reworked must be clearly identified, so SGM can track it easily.
经过返工的集成零件必须明确标识，以便 SGM 跟踪追溯。

4.8 The VAA supplier must manage the status change or EWO of the VAA parts in its plant. It's also its responsibility to organize PTR, control BP and feed back to SGM on time.
VAA 供应商必须组织 VAA 零件在其装配厂内的状态更改或 EWO 工作、PTR 实施、断点控制，并及时跟踪反馈相关信息。

4.9 During new program launch, any quality problem of those parts which provided by SGM, or any matching problem and response issue in development phase, VAA supplier will release quality problem reports to SGM SQE responsible for tie1 parts. After validating, SGM SQE responsible for tie1 parts release the quality PR&R or custom satisfaction PR&R or CS to correlative supplier and meantime inform SGM SQE responsible for VAA Supplier. VAA supplier has the responsibility to follow the efficiency of the corrective action and feedback to SGM SQE responsible for tie1 parts and meantime inform SGM SQE responsible for VAA Supplier.
对于 SGM 提供的零件出现质量问题，或相关供应商的配合响应问题，VAA 供应商填写相关质量问题报告，交主管该一级零件的 SQE 审核，由主管该一级零件的 SQE 向供应商发出质量 PR&R 报告或客户抱怨 PR&R 报告或受控发运，同时通知主管该 VAA 供应商的 SQE。VAA 供应商负责跟踪措施有效性并反馈给 SGM 主管该一级零件的 SQE，同时通知主管该 VAA 供应商的 SQE。

4.10 VAA supplier should follow up the BP according to the continually change in program launch phase, do the FIFO well, and distinguish the different status with integration bar code or mark on integration. VAA supplier need to track all the integration quality problems on site in SGM as well.
对于项目开发阶段零件不断更改的状况，VAA 供应商应跟踪各阶段的零件断点，做好先进先出，并运用总成条形码或总成上点色标以区分不同零件状态。VAA 供应商应在 SGM 现场跟踪与总成相关的所有质量问题。

4.11 The defects of those parts, which provided by SGM or pulled from local supplier by VAA supplier, should be counted by VAA supplier and reported to relevant SQE once a week. The statistical information should be sent to SGM VAC statistician monthly. Non-conformance parts must be disposed by VAA supplier daily in its plant and be distinguished if it will be charged to VAA supplier, or part suppliers, or be reworked. The above information should be collected and submitted to SGM SQE. Batch problem should be disposed and informed to SGM SQE intraday. SQE shall audit VAA supplier termly.
VAA 供应商需要对 SGM 提供的零件或 VAA 供应商自行拉动的零件进行缺陷统计，并每周向相关 SQE 通报、每月把统计信息发送至 SGM 数据统计员. VAA 供应商需要每天对其生产现场不合格零件进行处置，确定是工废、料废还是进行返工返修，并制成报表交相关 SQE。批量问题应当天及时处置并通知相关 SQE。SQE 定期对 VAA 供应商进行监督评审。

4.12 VAA supplier must take the responsibility to analyze the problems related with the assembly parts.
VAA 供应商必须承担对提供总成零件的相关问题进行分析的责任。

Reference documents:
支持文件：

- <Operation Process and Management Rules of Consignment (VAA)>
  《Consignment（VAA）供应商物流操作 方法及管理制度》
- <Handling Process of Consignment (VAA) Part Quality Problem>
  《外协委托加工的零件问题处理规程》

五、 SGM General Requirements to Greenfield / Brownfield Supplier of Global Program Addendum
SGM 全球项目中对新建、扩建厂房供应商的一般要求

For China Greenfield and Brownfield suppliers, the information below should be provided within the required time limit to enable the completion of the sourcing recommendation:
对于国内新建（扩建）厂房的供应商，必须在SGM SQE发出QUAD报告前的规定时间期限内提供以下信息：

5.1 Provide written plans for construction or procuring a manufacturing facility, quality system certification and commitment date to pass the SGM Potential Supplier Assessment (SGM requires for PPAP). The plans should include:
提交书面的建厂（扩建）、质量体系认证、通过SGM PSA评审（PPAP前）的计划，包括但不限于下面的内容：
-Will there be a partnership with a Chinese entity? If yes, please identify the entity.
- 是否在国内找合资/合作伙伴，如果是，合资/合作方的公司名称？
-What is the due date to decide the plant location and company registration (Greenfield only)?
- 工厂选址和公司注册成立的最后期限 (仅适用于新建厂供应商)
-What is the due date for buying the land for the manufacturing plant? What will be the plant's construction capacity?
- 购买/获得土地和厂房完工的最后期限
-What is the schedule for hiring personnel along with the schedule for training personnel?
- 人员招聘和培训
-Non-SGM suppliers shall provide the quality performance of its quoted location including its global quality performance for the quoting commodity.
-- 非SGM配套供应商需提供国内及申报海外业务的兄弟公司的近期质量表现记录

5.2 What is the Headquarters' support plan for the local plant (Whom, position, when and length of support)? A Supplier, who has design responsibility, shall provide the plans of engineering support and production validation at the assembly level.
海外母公司/总部对国内工厂的详细支持计划（包括人员和时间）。对于有设计职能的供应商，需提供国内项目的工程支持计划及总成级产品认可的计划。

5.3 Material, facilities, technics and supplier chain from different region should be as the same as the global plant according to global purchasing. Define the countermeasures to either in-house or outsourcing part/process and assure the unique operations after SGM SQE approving can provide product to the global quality standard.
根据全球采购原则，供应商不同生产基地的原材料、设备、工艺和分供方应保持全球一致，如果不同，必须识别中国与海外公司在原材料/工装/设备等方面存在的制造工艺差异。提供针对自产或委外加工产品或过程的相应控制措施，并得到SGM SQE批准，以确保所生产的产品符合全球质量标准。

5.4 The supplier must sign the letter of commitment related with product design, manufacturing and quality control as SGM SQE required.
供应商必须签署SGM SQE要求的相关产品设计、制造和质量控制承诺书。

5.5 If the supplier fails to provide the plans and commitments on time, SGM cannot provide a recommendation. If the plans are provided following the recommendation required date, SGM SQE may not reconsider.
如果供应商没有按时提交上述计划和承诺，SGM SQE将拒绝推荐该供应商，并且在发出QUAD报告后，不再接受事后补交。

六、 Supplemental Requirements to Overseas Design and Local Foot Print Supplier
对海外设计、国内生产供应商的特殊附加要求

6.1 Supplier APQP team shall include the personnel from its engineering and local plant. The local contact window to SGM shall be established. The assigned APQP project manager is nominated to take in charge the overall project, track the proceedings of engineering release, inputs specific product characteristics requirements of SGM, and is responsible for local construction, equipment installation and production readiness, holds program meeting and reviews the status with SGM PDT team on the timely basis.
供应商 APQP 项目小组必须包括海外设计人员和国内生产基地人员，国内生产基地必须设立与 SGM 业务相关的联络窗口，由国内生产基地 APQP 项目经理协调整体项目，跟踪海外设计进度，输入 SGM 的产品特殊要求，同时负责国内厂房、设备、生产准备。定期与 SGM PDT 小组召开项目会议，跟踪 APQP 进度。

6.2 Supplier design engineer shall be involved onsite SGM PVV\NS\S build event, deep dive issue investigation in time to achieve the quick response and problem resolution, and initiate engineering changes where required.
供应商海外产品设计工程师必须现场参与 SGM PVV\NS\S 阶段的生产装车，及时帮助开展问题分析以快速解决零件发生的问题，并根据 SGM 装车情况进行相应的设计更改。

6.3 Supplier design engineer and process engineer shall follow up build status and initiate engineering and process changes during the pre-pilot and PPAP phase.
在国内供应商处进行产品试生产和 PPAP 时，供应商海外产品设计工程师和工艺工程师必须在国内生产基地跟踪生产状况，及时根据现场情况进行必要的设计、工艺更改。

6.4 Fundamental resource and capability of local plant is expected for necessity changes on part dimension and tooling, to ensure the miss-matching appeared in regional build vehicle is resolved.
国内生产基地必须具备基本的人力资源和能力，为解决零件在整车上的匹配问题，进行必要的外形尺寸修改和相应的工装更改。

6.5 The warranty claim will be delivered in form of PR&R by SGM, and the resolution with root cause shall be responded accordingly by Supplier design engineers.
对零件在售后发生的质量问题，SGM 将以 PR&R 形式反馈给供应商，供应商海外设计人员应及时分析根本原因，拿出解决方案。

七、 Special Requirements to Supplier Repair Process
对供应商返修过程的特殊要求

7.1 SGM tier 1 supplier must have independent process.
SGM一级供应商必须有独立的返修流程。

7.2 SGM tier 1 supplier must have independent repair area, and parts in repair area must be well marked. Repair job must follow approved SOS/JIS, which must be confirmed by technique department, quality department and manufacture department.
SGM一级供应商必须有独立的返修区域；返修区域零件状态需有明确标识；返修工作必须按照经过审批的返修作业指导书执行；返修作业指导书需经过供应商的技术部、质量部、制造部的共同确认。

7.3 As for repair of High risk part (including functional repair job /lots of /safety parts), whether the part supplied by tier 1 or sub-supplier,“Request Sheet for Repair Job”must be submitted by tier 1 supplier to related SGM PE/SQE/VQ for approval before repair. Repair Parts List should contain such information as part No/range of repair job /quantity/approved date etc for onsite audit.
对于高风险零件的返修（安全件/功能件/大批量返修），无论该零件来自于一级供应商或下级供应商，一级供应商必须递交“供应商返修零件申请单”，经 SGM 相关 PE/SQE/VQ 共同确认后，返修方可进行。供应商现场应有返修零件清单，包含经 SGM 批准的返修零件号、返修范围、数量、批准时间等，供现场审核。

7.4 Trier1 supplier should be responsible for sub-suppliers' repair process. If any influence or economic losses because of sub-suppliers' repair job, trier1 supplier will take the responsibility. Establish the back-feed and forward-feed system between tier1 and sub-suppliers to avoid and reduce repair risk.
SGM一级供应商负责下级供应商的返修工作，因下级供应商返修造成SGM的损失，由一级供应商承担。一级和二级供应商之间建立返修的前馈和后馈机制，共同规避返修风险。

7.5 If defective parts need to be sorted or repaired by the third party, the associated cost should be paid by supplier.
如缺陷零件需要由第三方进行筛选或返修，筛选或返修的相关费用由供应商承担。

7.6 If defective parts or repaired parts need to be tested, the associated cost should be paid by supplier.
与缺陷件及返修件相关的测试费用由供应商承担。

八、 APQP Requirements
APQP 要求

8.1 SGM require supplier should do APQP for all new parts according to requirements of GM1927 Global APQP and GM1927 Global APQP. To EWO parts and other parts which need do PPAP need be implemented according to corresponding items. (Supplier should confirm the detailed requirements with SQE).
SGM 要求供应商按照 GM1927 Global APQP 和 AIAG APQP 的要求，对所有新开发零件进行先期质量策划活动。对 EWO 零件和其他需要进行 PPAP 的零件，参照执行适用的部分（具体要求与 SQE 确定）。

8.2 According to GM TS16949 customer special requirements, PPAP, APQP record, tools record should be kept until parts life add one calendar year, unless SGM agree to give up in written.
按 GM TS16949 顾客特殊要求，PPAP、APQP 记录、工装记录等，应保存至产品现行生产和服务期再加一个日历年，除非 SGM 书面同意放弃。

8.3 According to TS16949 requirements, supplier should carry out quality system development work to tire2 supplier according to ISO9001. To tire2 supplier's parts, supplier should do APQP, PPAP, GP-9 and GP12 etc. action. To supplier of module supply or system supply, SGM ask supplier do APQP to their tire2 supplier according to GM1927- Global APQP portion and AIAG APQP and SGM related requirements.
按 TS16949 要求，供应商应对二级供应商按照 ISO9001 进行质量体系开发工作。对二级供应商的零件应进行 APQP 和 PPAP、GP9、GP12 等活动。对模块化供货或系统供货的供应商，要求

其对适用的二级供应商根据 GM1927-Global APQP 部分和 AIAG APQP 及 SGM 相关要求进行产品质量的先期策划。

8.3.1 The localization for all vehicle non-tier1 Fastening Pieces shall follow ***PATAC Fastener Localization Procedure***.

对于整车所有的非OO级紧固件的国产化，按照泛亚的《紧固件国产化程序》进行。

8.3.1.1 Localization requirements of non-level 00 fasteners cover those fasteners that have direct assembly relationship with SGM GA or that SGM has design responsibility.

非00级紧固件国产化要求覆盖的范围包括：与SGM总装有直接装配关系的非00级紧固件, 以及SGM负有设计责任的总成中的非00级紧固件。

8.3.1.2 As for fasteners, the supplier must direct buy the fastener from the corresponding fastener supplier approved by SGM.

对于紧固件，供应商到SGM批准的紧固件供应商处购买。

8.3.1.3 Assembly supplier shall fill in < Supplier Application Form of Fastener Localization> if it wants to localize fastener. Only when approved by DRE and fastener engineer, can supplier localize fastener. In special case, if the supplier wants to select fastener supplier that haven't been approved by SGM, written approval must be gotten from DRE, fastener engineer and SQE. No submission of < Supplier Application Form of Fastener Localization> in case of CKD fastener.

如果总成供应商要进行紧固件国产化，则需要填写《紧固件国产化申请单》，并经DRE和紧固件工程师批准后，方可进行国产化；如确有特殊需要，需找非目前SGM认可的紧固件供应商进行国产化，需经DRE、紧固件工程师、SQE的书面同意。

8.3.1.4<Fastener Supplier Contact List Approved by SGM> and < Supplier Application Form of Fastener Localization> can be obtained from relevant fastener engineer.

《SGM认可的紧固件供应商联系表》、《紧固件国产化申请单》可以通过相关紧固件工程师获得。

8.4 Supplier shall make gate reviews and feasibility commitments that follow GM Global APQP, completing the specified 17 tasks and others required by SGM. Issue list and program schedule shall be updated to be consistent with the program status.

供应商必须按 GM Global APQP 要求进行阶段评审和可行性承诺，完成规定的 17 项任务以及 SGM 要求的其它任务。问题清单和项目进度表应保持动态更新，与项目状态一致。

8.5 Supplier of vehicle welding assembly parts should make the necessary MC equipment and tools for MC1 of their sub-assembly by themselves.

对于提供车身焊接总成零件的供应商，应根据 SGM MC 的要求，供应商制作必要的 MC 设备和工装，自行完成其分总成的 MC1 工作。

8.6 Supplier should carry out related requirements of SGM (for example Warrant, Mark on the parts，test record, measurement size report, capability analysis, tooling requirements) for when submit MC, OTS, Prototype samples to SGM.

MC、OTS、Prototype 等样件的提交，需按 SGM 有关规定严格执行（如保证书、零件偏差标注、试验记录、全尺寸报告、能力分析、工装要求等）。

8.7 Test items shall be finished at the labs with GP-10 certification or ISO17025 certification. The 3rd

labs must be approved or agreed by SGM when the test items are related to GM Standards.
试验项目必须由GP-10认可的实验室或由ISO17025认可的实验室进行。当试验涉及GM相关标准时，第三方实验室必须得到SGM的批准或认可。

8.8 **Tooling Requirements:**
工装模具要求：

8.8.1 According to the part development plan of Purchasing Department, part suppliers should choose tooling suppliers which are approved by SGM in principle.
根据 SGM 采购部的零部件工装模具开发计划，零部件供应商原则上应按 SGM 认可的工装模具供应商清单选择。

8.8.2 If the part supplier choose the tooling suppliers not in SGM approbated lists or make the tooling themselves, they must be approved by SGM professional tooling SQ Engineer.
零件供应商另选不在认可清单上的工装模具厂，或者选择工装模具自制，必须得到 SGM 专业的工装模具供应商质量工程师认可。

8.8.3 The part supplier can refer to the appendix of <SGM Operating Rules on Tooling and Payment> on tooling quotation.
零件供应商对工装模具的报价可参见附件《SGM 工装模具操作规范及支付》。

8.8.4 Choosing tier II and lower level parts' tooling supplier should also follow SGM tooling management procedure. Tier I parts supplier should propose the Tier II parts' tooling supplier source for audit and get SGM tooling engineer's approval. After using this tooling source, Tier I parts supplier is responsible for Tier II and lower level parts supplier tooling quality management. If there is any timing and quality problem in these sources, SGM will directly issue customer satisfaction PR&R to Tier I supplier.
二级及更下级零件工装模具资源的使用也应遵循 SGM 工装模具管理规定。由一级零件供应商提出工装模具供应商审核申请,且只有在得到 SGM 专业工装模具工程师认可后才能使用。在使用该工装模具资源后,一级零件供应商将负责二级及更下级零件的工装模具质量管理,一旦出现质量或进度问题，SGM 将直接向一级零件供应商发客户满意 PRR。

8.8.5 The technical and management requirements of Injection Mold, Pressing Mold and Die-casting Mold can be referred to the appendix of <Supplier Injection Mold Technical Criterion>, < Supplier Pressing Mold Technical Criterion> and <Supplier Die-casting Mold Technical Criterion>.
有关注塑、冲压、压铸模具的相关技术和管理要求可参见附件《供应商注塑模具技术规范》、《供应商冲压模具技术规范》、《供应商压铸模具技术规范》。

8.9 The technical and management requirements of plated / painted parts can be referred to the appendix of <Injection, Plating and Painting Requirements of Exterior Part> on SGM Part & Process Specific SQ SOR.
针对电镀/油漆零件的相关技术和管理要求可参见附件“SGM 特定零件和过程供应商质量 SOR”的《外饰零件注塑、电镀、油漆要求》。

8.10 The part supplier shall check the latest edition of SGM approbated lists (such as tooling, painting, plating, heat treatment, labs, etc.) through EP system and choose the suppliers from the lists.
零部件供应商需在 EP 系统中及时查询当前最新版本的 SGM 各类认可清单（如工装模具、油漆、电镀、热处理、实验室等）并选择认可清单中的供应商。

8.11 Flow chart should be same with process and should cover to acceptance, storage, test, repair, package, label and shipment. Flow chart should be mach with PFMEA and control plan. Control plan should be consummate and efficiency.
流程图与生产过程一致，应包括接收、存储、生产、检验、返工、包装和标签作业以及发运等所有过程。流程图与 PFMEA、控制计划相对应。控制计划应完善、有效。

8.12 In APQP process, supplier must record the problems which will affect project schedule and production quality in Problems Open Issues List. At the same time, supplier should inform SQE and solve these problems actively.
APQP 过程中对任何可能影响项目进度或产品质量的问题，都必须在问题清单中记录，及时通知 SQE，并积极跟踪解决。

8.13 At the early stage of project development, before product launch of SGM, SGM will do risk assessment and take extra control action for supplier with high risk.
在项目开发初期、SGM 生产启动前等项目过程中，SGM 将对供应商进行风险评估，并对高风险的供应商采取额外的控制措施（如专门的质量阀会议）。

8.14 Before the production launch, SGM require that the all related suppliers should attend the production launch meeting which SGM hold.
在 SGM 生产启动前，SGM 要求各有关供应商参加 SGM 召集的生产启动会议（Launch meeting）。

8.15 Periodic testing or inspection for suppliers'3C key parts and material
对供应商 3C 关键零部件及材料的定期确认检验

8.15.1 Suppliers are responsible for 3C parts / material testing or inspection (if necessary, relative requirement should be listed in Control Plan), and deliver the testing reports / records or the third party's documents to SGM relevant SQE. And the SQE should review the documents and makes the conclusion.
由供应商负责 3C 零部件和材料的定期检验（如有必要，可在控制计划中体现该要求），并向主管该产品的 SGM SQE 提交产品合格的检测报告、记录或第三方的验证材料，SQE 负责确认文件的有效性。

8.15.2 Accordance review for 3C key parts / material must be implemented at least once a year.
3C 关键零部件和材料质量符合性定期确认至少每年进行一次。

8.15.3 Related reports / records should be filed by suppliers and be required to keep traceability
相关报告和记录由供应商负责保存，并要求具备可追溯性。

九、 PPAP Requirements
PPAP 要求

9.1 **Regulation:**

规定：

9.1.1 PPAP applies to supplying production parts, service parts, production materials, or bulk materials. For bulk materials, **PPAP** is not required unless specified by SGM related area.

PPAP 适用于生产件、服务件、生产材料或散装材料。对散装材料，除 SGM 相关方特别要求，一般不要求 PPAP。

9.1.2 Supplier shall satisfy related requirements of AIAG PPAP(including 《GM Customer Specifics - ISO/TS 16949》)

供应商必须满足 AIAG PPAP 的有关要求（包括 TS16949“通用汽车公司的特殊要求”中相关部分）。

9.1.3 The supplier shall obtain full approval from SQ&D for:

在下列情况下，供应商必须获得 SGM 供应商质量开发科的完全生产批准：

9.1.3.1 A new part or product.

一种新的零件或产品。

9.1.3.2 Correction of a discrepancy on a previously submitted part.

对以前提交零件不符合的纠正。

9.1.3.3 Product modified by an engineering change to design records, specifications, or materials.

由于设计记录、规范或材料方面的工程更改引起产品的改变。

9.1.3.4 Any situations required by AIAG PPAP Section I.3. ‘Customer inform and submission requirement’.

AIAG PPAP I.3“顾客通知和提交要求”中要求的情况。

9.1.3.5 Any situations that supplier shall inform SQE, which required by AIAG PPAP Section I.3. ‘Customer inform and submission requirement’, and SQE require.

AIAG PPAP I.3“顾客通知和提交要求”中，要求供应商通知顾客的情形时，SQE 要求进行 PPAP 的。

9.1.4 Product for **PPAP** shall be taken from a significant production run. This significant production run shall be from one hour to eight hours of production, and with the specific production quantity to total a minimum of 300 **consecutive** parts, unless otherwise specified by SQE.

用于 PPAP 的产品必须是取自供应商现场正式的生产过程 1－8 小时的生产，且规定的生产数量至少为 300 件连续生产的产品，特殊情况需获得 SQE 同意。

9.1.5 This run of PPAP shall be manufactured at the production site using the tooling, gaging, process, materials, and operators from the production environment. Parts from each unique production process e.g. duplicate assembly line and/or work cell, each position of a multiple cavity die, mold, tool or pattern, shall be measured and representative parts tested.

PPAP 必须在生产现场使用与正常生产环境相同的工装、量具、过程、材料和操作工进行生产。对于来自每个生产过程的零件，如：一个以上装配线和/或工作站、一模多腔模具的每一模腔、成型模、工装或模型，都必须进行测量，并对代表性零件进行试验。

9.1.6 The supplier shall meet all specified requirements: design record, specifications.
供应商必须满足设计记录、规范的所有要求。

9.1.7 Reporting of Part Material Composition
零件材料构成报告

9.1.7.1 For all the new vehicle programs, all part material must meet with GMW3059 requirement for full PPAP. Suppliers shall submit an accepted MDS in IMDS for full PPAP Approved (If no change of the material for old programs, it should be approved by SGM SQE). IMDS Website is available through: http://www.mdsystem.com/index.jsp.
对于整车项目，凡是供给 SGM 零件的所用材料必须符合 GMW3059 标准，同时供应商必须在 IMDS 系统中通过 MDS 进行材料申报（如涉及到材料不进行变更的老项目，需得到 SGM SQE 认可），以获得 SGM PPAP 的完全批准。IMDS 相关网站见 http://www.mdsystem.com/index.jsp。

9.1.7.2 For PT programs, suppliers shall follow the engineering requirements to submit the accepted MDS in IMDS.
对于 PT 项目，根据工程具体要求，相关供应商进行材料数据申报工作。

9.1.8 The supplier shall submit all documentation and records according to PPAP checklist.
供应商必须按照 PPAP 检查清单规定的内容，提交相应文件和记录。

9.1.9 Part submission status:
PPAP 零件批准状态：

9.1.9.1 Approval: the part or material meets all SGM specifications and PPAP requirements.
批准：零件满足 SGM 及 PPAP 的所有要求。

9.1.9.2 Saleable: Definition and explain refer to 《GM Customer Specifics - ISO/TS 16949》
可销售：定义及说明参见通用汽车的特殊要求。

9.1.9.3 Non-Saleable: Definition and explain refer to 《GM Customer Specifics - ISO/TS 16949》
不可销售：定义及说明参见通用汽车的特殊要求。

9.1.9.4 Rejected: part or material or documentation does not meet customer requirements.
拒绝：零件或相关文件不满足规定的要求。

9.1.10 Suppler responsibility on interim approval (including Saleable and Non-Saleable)
临时批准（包括可销售 PPAP、不可销售 PPAP）时零件供应商的责任

All supplier of PPAP interim approval shall fill in GM1411 Interim Approval Documentation. (Refer to 《GM Customer Specifics - ISO/TS 16949》). When fill in GM1411, the supplier shall:
所有 PPAP 临时批准零件的供应商应当填写 GM1411 临时批准书。（参见 TS16949 系列手册之《生产件批准程序》－通用汽车的特殊要求）。在完成 GM1411 临时批准书时：

9.1.10.1 State the major reason for interim.
供应商应当准确填写临时批准的主要原因；

9.1.10.2 Highlight the planned date of all correction, and promise the PPAP re-submission date.
供应商应当明确所有纠正措施的时间进度，并对于 PPAP 再次递交日期作出承诺；

9.1.10.3 Make integrated correction; so that the re-submission will be meet all PPAP requirements.
供应商应当制定系统的纠正措施，以便保证今后的递交能够满足 PPAP 的所有要求；

9.1.10.4 Approve GM1411 by management.
供应商的管理层应当对于该临时批准书进行批准；

9.1.10.5 Meet other requirement of GM1411.
供应商应当完成 GM1411 临时批准书的其它要求。

9.1.10.6 Get the interim approval from SGM PE (and/or Engineer related) for PPAP caused by issues of AAR, dimension, test, design, tooling changing, product structure.
由于外观质量（AAR）、尺寸、试验、设计、工装修改、产品结构等问题引起的 PPAP 临时批准必须得到 SGM 产品工程师（和或相关工程师）的批准；

9.1.10.7 No more than 3 months for any interim which can be prolonged when long-term actions finished for more than 3 months, such as purchasing of new tooling and machine, long cycle test verification, etc. Supplier should apply for prolonging if correction does not be finished by the planned date in GM1411. But supplier shall refresh and submit GM1411.
PPAP 临时批准的时间一般不超过三个月，若模具/设备采购周期、某些试验认证周期等相关措施大于三个月的，临时批准时间可适当延长。供应商无法按照 GM1411 临时批准书承诺日期完成相应的纠正措施时，可以在新的 PPAP 递交时申请 PPAP 临时批准延长，但必须重新提交 GM1411。

9.1.11 Statement:
说明：

9.1.11.1 Early production constraint –Supplier executes GP-12 procedure based on SGM “GP-12 Early Production Containment Operation Procedure” requirements.
早期生产遏制：供应商根据 SGM 要求执行《GP-12 早期生产遏制工作规程》相关规定。

9.1.11.2 All PPAP documents submitted by suppliers shall be filed in SGM EP system directly.
供应商提交的 PPAP 文件一律在 SGM EP 系统中直接归档。

9.1.11.3 When supplier does not pass PSA before PPAP, the third party assigned by SGM refers to “The Operation Principle of Controlled Shipping” to perform 100% inspection before shipping at the supplier’s expense. Supplier obtains full approved PPAP and the third party stop inspection until PSA passed.

供应商在 PPAP 前若未通过 PSA，SGM 参考《受控发运操作规程》的操作方法，指定第三方对供应商实施发运前 100％检查，费用由供应商承担，且 PPAP 批准状态只能为临时批准。直至 PSA 通过后，PPAP 才能完全批准且第三方退出。

9.1.11.4 SQE can approve PPAP after “Commodity Engineering Approval Report” approved by PATAC or GM3660 “Commodity Validation Sign-off” approved by GM Homeroom referring to those parts that have engineering approval requirement. 针对有工程认可要求的零件，只有在获得经 PATAC 批准的零件工程认可报告或经 GM Homeroom 批准的 GM3660 “Commodity Validation Sign-off”后，SQE 才可以进行 PPAP 批准。

9.1.11.5 Compliance with GMW15862 “Bar Code Content, Format, and Label Requirements for Part Identification, Verification, and Traceability” is required when applicable CG2503 “Bar Code Label Validation Content and Format Form” is required for approved PPAP status for all new PN’s when a 2-dimensional bar code is specified on the part drawing (effective since May 1st., 2011). 所有零件当图纸上有二维码要求时必须遵守 GMW15862“用于零件识别、验证和追溯的条形码内容、格式和标签要求”来使用 CG2503“条形码内容、格式确认表”，以满足 PPAP 批准要求。（2011.5.1 起生效）

十、 GP-12 Requirements
GP-12 要求

10.1 **Scope and Purpose:**

应用范围和目的：

10.1.1 Scope: It applies to all newly developed parts or newly EWO parts, or the suppliers with significant risk represented by SGM.

应用范围：适用于所有新零件或工程更改新零件，或存在重大风险的供应商。

10.1.2 Purpose: Supplier should identify part quality risk, and find root cause to solve the problem to avoid defect happened in batch process.

目的：供应商有效识别零部件的质量风险，找出根本原因并给予解决，从而避免以后大批量缺陷的发生。

10.2 **Entrance:**

进入：

10.2.1 For newly developed or newly EWO parts, supplier performs GP-12 at the beginning of sample-submission.

对新零件或工程更改新零件，从交样开始，供应商开始执行 GP-12。

10.2.2 Significant risk from supplier (for example: production location transfer, sub-supplier change, process out-of-control, etc...) represented by SGM, supplier performs GP-12 to related parts.

SGM 认为有重大风险（如易地生产、分供方改变、过程失控等）时，要求供应商对相关零件执行 GP-12。

10.3 If issuing GP-4 Production Part Approval Status Notice, SQE accordingly chooses GP-12 option in GP-4 Production Part Approval Status Notice based on SGM requirements. If issuing GP-12 in EP, SQE accordingly chooses GP-12 option when creating APQP.
若发布 GP-4 生产件批准状况通知书，SQE 根据实际执行情况在 GP-4 生产件批准状况通知书中对 GP-12 的相关选项进行选择。若在 EP 系统中操作，在 APQP 创建时对 GP-12 的相关选项进行选择。

10.4 **Containment period:**
遏制时间：

10.4.1For newly developed parts or newly EWO parts, SQE determine the period of Early Production Containment with supplier according to GP-12 requirements, at least a month after SGM SORP/PTR success when supplier can apply to exit.
对新零件或工程更改新零件，供应商质量工程师按 GP-12 的要求与供应商确定早期生产遏制时间，至少 SGM SORP/PTR 成功后一个月供应商才可以申请退出。

10.4.2 For significant risk, SQE determines containment period based on risk.
对于重大风险问题，由 SQE 根据风险程度决定遏制时间。

10.5 Supplier controls the pre-launch according to GP-12 requirements.
供应商按早期生产遏制程序(GP-12)要求，对试生产进行控制。

10.5.1 Identify the ownership to GP12.
确定 GP12 的负责人；

10.5.2 Develop the GP12 control plan, including function inspection, error proofing, extra inspection items, etc.
制定 GP-12 控制计划，包括：功能检测、防错措施、附加检验项目等；

10.5.3 Containment should be performed in time upon detecting nonconformance in GP12 and permanent corrective activities should be taken.
对于 GP-12 过程中发现的不合格问题应及时遏制并采取永久纠正措施；

10.5.4 Identify and verify the inspection equipment needed and the relative data collection measurements.
识别和确认所需的测量设备及相关的数据收集方法；

10.5.5Preserve the written evidence of performing and validating of the control plan, and submit to SQE, including relative containment data, correct method, etc.
保存实施并验证控制计划的书面证据，并提交 SQE，包括：相关遏制数据、纠正方案等。

10.5.6 According to GP-12 requirements, supplier sticks round green label (Diameter 3.2 ~ 5 CM) signed by management representative on the product or beside the shipping label during the Early Production Containment period.
供应商在执行早期生产遏制时按 GP-12 的要求，贴上由管理者代表签名的绿色圆形（直径 3.2 ~ 5 CM）标贴，并黏贴于产品上或发运标签旁。

10.6 **Exit criteria:**
退出原则：

10.6.1 If there are no quality issues on SGM site during GP-12. Or if there are quality issues on site, relative quality issues are all solved, and CSs are all closed.
如 GP-12 期间在 SGM 现场无质量问题发生。或在 SGM 现场发生质量问题，但有关质量问题均已被解决，受控发运均已被关闭。

10.6.2 Supplier floor process is steadily controlled, product quality and process capability meet SGM requirements.
供应商现场的过程稳定受控，产品质量和过程能力满足 SGM 要求。

10.7 When meeting GP-12 containment period and exit requirements, supplier should apply for GP-12 exit which confirmed by SGM Supplier Quality Engineer.
当供应商满足 GP-12 的遏制时间和退出要求时，由供应商提出退出申请，SGM SQE 进行确认。

10.8 Supplier no longer adds round green label on the product or beside the shipping label as for the products which have exited GP-12.
供应商在退出 GP-12 控制的产品上或发运标签旁不再增贴绿色圆形标贴。

十一、 GP-9 Requirements
GP-9 要求

11.1 Regulation:
规定：

11.1.1 There two types monitor for Run at Rate: customer monitor and supplier monitor. SQE should inform supplier which types monitor should be carried out.
按节拍生产分为两种类型：顾客监控和供应商监控，SQE 应在 APQP 早期通知供应商实施的类型。

11.1.2 Supplier and SQE should determine the Run at Rate date together during the early stage of APQP. If the date has changed, supplier should inform SQE at least 2 weeks prior to Run at Rate.
按节拍生产的运行日期应在 APQP 早期由供应商和 SQE 共同确定。如日期发生改变，供应商应至少提前 2 周通知 SQE。

11.1.3 During the Run at Rate the Supplier's actual manufacturing process will be assessed to verify its ability to meet the quality and capacity requirements as contracted and detailed in Attachments B and C.
在按节拍生产运行期间，供应商实际制造过程应得到评估，以确认其有能力符合：合同规定的质量、产能要求，以及模拟运行时填写的附件 B 和 C。

11.1.4 Supplier should be responsible for finished parts inventory from production runs to prepare for or complete a Run at Rate. This inventory should be properly package and storage until approved shipment.
供应商有责任管理按节拍生产模拟和正式运行所生产的产品，这些库存必须被适当地包装和存储至授权发运。

11.1.5 Subcontractor Requirement
对分供方的要求

11.1.5.1 Tire one suppliers are required to ensure the reliability of their suppliers.
一级供应商应负责其分供方的可靠性。

11.1.5.2 Written confirmation of daily contracted requirements, as well as actual systems performance for Quality, Capacity and Delivery, must be provided to SQE prior to the Run at Rate.
在 GP-9 运行前，供应商以书面形式向 SQE 提交分供方的每日合同产能确认以及实际的质量、产能、发运表现。

11.1.5.3 It is recommended that supplier utilize this Run at Rate process to subcontractor.
推荐供应商使用本程序进行分供方产能的研究。

11.1.6 Corrective Actions
纠正措施

11.1.6.1 Should the Run at Rate results fail to meet the requirements of this procedure for quality and/or capability, a corrective action plan must be submitted to and approved by SQE within two days following the completion of the Run at Rate.
因质量和/或产能不符合导致的按节拍生产失败，必须在按节拍生产完成后 2 日内将纠正措施提交 SQE 并得到批准。

11.1.6.2 Upon full implementation of the corrective action plan, the SQE will determine the method of verification, which may require an on-site review or a new Run at Rate study.
纠正措施实施后，SQE 决定验证方法：实施效果现场确认或重新进行按节拍生产。根据验证结果，修改结论。

11.1.7 Tire one supplier's Run at Rate
一级零部件供应商的按节拍生产

11.1.7.1 The Run at Rate should be performed after supplier has attained PPAP approved and before SOP. If PPAP status is No-saleable, supplier needs to get approval from SQE.
本程序应在 PPAP 得到批准后、SORP 节点前执行。如 PPAP 批准状态为不可销售，需与供应商质量工程师协商。

11.1.7.2 The duration of the Run at Rate will be sufficient to verify that the process can meet the contracted capacity while producing the Total Customer Requirement. The default length of the Run at Rate will be equal to the daily contracted hours. SQE may deviate from the default duration after taking into consideration the following factors: Product Complexity, Shelf Life, Storage & Packaging, Cost, and Production Day Length.
按节拍生产持续时间应足够以验证该工艺过程在满足所有客户的前提下能够符合合同产能。缺省为：每日合同生产工时。SQE 可根据下列情况进行调整：产品复杂程度、产品保存期限、存储和包装形式、成本、每日正常生产时间。

11.1.7.3 Customer monitored
顾客监控按节拍生产

11.1.7.3.1 To ensure readiness before the Run at Rate is performed, the supplier will conduct a practice Run at Rate, as well as complete the Run at Rate attachment B, C and submit to SQE.
供应商必须于正式运行前模拟运行一次，以确保准备就绪，并填写附件 B 和 C 系列提交 SQE。

11.1.7.3.2 SQE should monitor the whole production process. If, however, it is clearly evident that the working procedure/process capacity is well above the contracted requirement, SQE may accept the results of a portion of the Run at Rate without being present.
SQE 现场监督整个生产过程，除非某工序/过程能力显著大于合同产能，SQE 可以不在现场但接受这部分运行结果。

11.1.7.3.3 If it is necessary, SQE could invite Buyer or DRE participate monitor.
适当时，SQE 可以邀请采购员或产品工程师参加监控。

11.1.7.4 Supplier Monitored
供应商监控按节拍生产

11.1.7.4.1 Supplier should ensure that the Run at Rate is performed as detailed in this procedure.
供应商应确保遵守本程序。

11.1.7.4.2 The supplier's production project manager or their designate must be present and monitor the whole production process.
供应商应由该产品项目经理或其指派人员现场监控整个生产过程。

11.1.8 Within 24 hours after complete production, supplier should fill in formal attachments A (GM1960-A)、B(GM1960-B) and C(GM1960-C、C1、C2 和\或 C3) system forms and submit to SQE. (If the project needn't run through EP system, supplier's top management representative should sign on the attachment A and stamping; if the project need run through EP system, supplier's top management representative need sign on the attachment A and submit to EP system)
在生产完毕后的 24 小时内，供应商必须填写正式的附件 A(GM1960-A（SGM）)、B(GM1960-B(SGM))和 C(GM1960-C、C1、C2 和\或 C3)。系统表，并提交 SQE。（对未进入 EP 系统的项目，供应商的高层管理人员必须在 A 表上签字并盖公司章；若通过 EP 系统运行的项目，则需要供应商高层管理人员签字后提交 EP 系统即可）

11.1.8.1 Upon completion of the Run at Rate study and attachments (B, C serials) audit, Run at Rate result will be obtained.
在完成按节拍生产研究以及工作表（附件 B、C 系列）评审后，将产生运行结论。

11.1.8.1.1 Pass. All Run at Rate requirements have been met. The process control Plan Audit (attachment B) and capacity analysis (Attachments C serial) have passed. Subcontractors' abilities to meet the capacity and quality requirements have been confirmed in writing by the supplier, and all parts produced meet SGM's quality requirements as stated in the requirements.
通过。所有按节拍生产要求得到满足。过程控制计划审核（附件 B）和产能分析（附件 C 系列）通过，分供方能力得到书面确认，所生产产品符合 SGM 要求。

11.1.8.1.2Staged. The supplier is meeting the approved plan for the gradual introduction to meet the full contracted capacity.
分阶段通过。供应商符合已批准的阶段性加速计划以达到合同产能。

11.1.8.1.3 Customer Fail. Supplier passed all Run at Rate requirements based on the contracted capacity, or agreed to staged implementation plan; however, SGM requirements (LCR) exceed contracted capacity.
顾客原因失败。供应商符合“通过”或“分阶段通过”的要求，但 SGM LCR 超过了合同产能，供应商无法满足。

11.1.8.1.4 Pending PPAP. All capacity related elements have been met and the status “Pass” is pending due to: PPAP status is temporary approval or SQE/supplier judge that there are incomplete PPAP issues which may impact the capacity of the production system. Upon satisfactory correction of the above conditions and assurance the capacity has not been affected, the status can be changed to “Pass”.
因 PPAP 待定。所有和产能相关的要求都得到符合，但其“通过”因：PPAP 临时批准或 SQE/供应商判断仍存在 PPAP 未关闭问题可能影响系统产能，而待定。当 PPAP 问题得到整改或确认其对产能没有影响后，可以将结论改为：通过。

11.1.8.1.5 Fail. A serious nonconformance exists in the Process Control Plan Audit(Attachment B) or Capacity Analysis (Attachment C) that requires significant action by supplier to correct, or if supplier fails to provide written confirmation of the subcontractor’s abilities to meet the Quality, Capacity, and Delivery Requirements.
失败。过程控制计划审核（附件 B）和产能分析（附件 C 系列）有严重不符合需进行重大整改，或无法提供分供方能力的书面确认。

11.2 Documents:

存档文件：

SQ&D should keep GP-9 related documents which supplier submitted, storage life is 2 years from submitting time.

供应商提交的按节拍生产相关文件由供应商质量与开发科保存，保存期为提交之日起 2 年。

十二、PTR & Break Point Requirements
PTR 与断点要求

12.1 PTR Regulation:

PTR 规定：

12.1.1 Part shall be successfully passed PTR before all new part after BP is shipped as normal to SGM.
所有的断点新零件在被供应商作为正常零件供给 SGM 之前，均必须已成功地通过 PTR 的实施。

12.1.2 PTR part shall be qualified, and can be assembled on SGM normal saleable vehicle.
供应商提供的 PTR 零件必须是合格的、可用于 SGM 正常可销售车生产的零件。

12.1.3 Supplier shall deliver PTR part to SGM before BP.
供应商必须支持在新零件断点前向 SGM 提供 PTR 零件。

12.1.4 Supplier is responsible for PTR of sub-supplier's part. Supplier should inform SQE the result at once for next action when PTR fails.
供应商有责任对 SGM 分供方零件状态更改实施 PTR。如果 PTR 失败，供应商必须在第一时间通知 SQE 工程师，以便采取后续措施。

12.2 Break Point Regulation:
断点规定：

12.2.1 Supplier shall feed back in 8 work hours after SGM inquiry Engineer BP on SGM internet. SGM follows up BP according to correct information offered by supplier.
供应商必须在 8 个工作小时内回复 SGM 网上发出的工程断点查询通知，并认真填写相关内容，提供正确的信息以作为 SGM 实施断点的依据。

12.2.2 According to "The Warming Process for Short of part", Supplier shall give a written alarm to SGM PC&L before at least four weeks when supplier can not continuously supply part as plan for any cause.
供应商由于任何原因而不能根据零件预测持续供应零件, 应至少于零件短缺前四个星期, 依据"短缺零件报警流程" 向 SGM 物流分部物料计划跟踪工程师（F/U）以书面形式报警。

12.2.3 SGM PC&L is the only department of confirming BP time for part regulation production.
SGM 物流分部是 SGM 唯一确定零件批量供货断点时间的部门。

12.2.4 Supplier shall control strictly old part in warehouse and prepare for new part supply after received engineering BP information from SGM PC&L.
供应商在收到 SGM 物流分部的工程断点信息后，必须严格控制旧零件库存，并做好新零件的供货准备工作。

12.2.5 Supplier shall change part state based on the requirements from SGM Engineering and Quality department. Supplier shall inform in advance SGM PC&L possible aftereffect when can not confirm whether part number change or not.
供应商根据 SGM 工程/质量部门要求而变更零件状态，如不能确定是否会引起零件号变化的，必须向 SGM 物流分部提前告知可能产生的影响。

12.2.6 BP Control and support work is an important factor in the process of supplier evaluation
对 SGM 断点控制支持与否是对供应商供货质量考核的一个重要因素。

十三、 PR&R Requirements
PR&R 要求

13.1 PR&R' s for Local Parts should be issued in the E-Procurement (EP) System; PR&R' s for Imported Parts should be issued in the GM Global Quality Tracking System (GQTS). Suppliers shall provide PR&R feedback in the system.

国产件 PR&R 在 E-Procurement （EP）系统中发布，进口件 PR&R 在 Global Quality Tracking System （GQTS）系统中发布。供应商必须要有专人回复 PR&R。

13.2 SQE、SDE or TM issue PR&R (including problem description and problem feedback) to supplier.
SQE、SDE or TM 发出 PR&R(包括:问题描述和问题反馈) 给供应商 。

13.3 Types of PR&R' s : Quality PR&R、 Customer Satisfaction PR&R 、indirect PR&R etc.
发布类型：质量 PR&R、顾客满意 PR&R、间接 PR&R 等。

13.4 Localization suppliers shall give the initial response within 1workday upon receiving the notice, and give the final response within 15 days upon receiving PR&R.
国产零件供应商应在接到通知后一个工作日内递交如何处理此问题的初步答复，并在 15 天内提交最终答复。

13.5 CKD parts supplier shall give the initial response within 2 workdays upon receiving the notice, and give the final response within 15 days.
CKD 件供应商应在接到通知后 2 个工作日内递交如何处理此问题的初步答复，并在 15 天内提供最终答复。

13.6 Initial Response Requirement: consisting of initial analysis of the problem 、 containment actions、method and part breakpoint date.
初步答复要求：包括初步的问题分析，遏制措施、方法和断点。

13.7 Final Response Requirement: consisting of problem Root Cause, process correction & preventive action taken, effective date of changes, relative quality documents of revised process Failure Mode and Effects Analysis (FMEA) and Control Plan (CP) and so on.
最终答复要求：包括问题的根本原因、长期纠正措施、长期断点日期并附上更改的 FMEA、控制计划等文件。

13.8 Requirement of closure PR&R:
关闭 PR&R 的要求：

13.8.1 Verify the validity of corrective actions on the shop floor,
整改措施和现场验证有效，

13.8.2 The supplier provide relative record of checking and trial,
供应商提交相关的检验、试验记录，

13.8.3 The supplier provide appropriate quality documentation (such as Process Flow Chart, PFMEA, DFMEA, Control Plan, error proofing measure, etc)
供应商提交相关的流程图、DFMEA、PFMEA、控制计划、防错措施等。

13.9 If it is demonstrated that the supplier are not responsible for the quality issue, the supplier could appeal the issuance of a PR&R.
如果确认质量问题不是供应商责任，供应商可以申请撤消 PR&R。

十四、 Controlled Shipping Requirements
受控发运要求

The entire GP-5 process is operated in E-Procurement system, and suppliers must provide feedback of the Level-1 Controlled Shipping or Level-2 Controlled Shipping in the system)
（整个 GP5 流程在 EP 系统中操作，供应商必须要有专人操作，执行一、二级受控发运。）

14.1 Conditions of Controlled Shipping:
实施受控发运的条件：

14.1.1 Level-1 Controlled Shipping:
实施一级受控发运的条件：

14.1.1.1 The short term or long term actions taken by the suppliers after SGM has released PR&R report still cannot contain the problem
SGM 发布 PR&R 报告后，供应商采取短期或长期措施后仍无法遏制问题的发生。

14.1.1.2 The supplier with big warranty quality problems.
发生重大售后质量问题的供应商。

14.1.1.3 Serious quality problems in batch or similar quality problems happen repeatedly.
批量性严重质量问题或类似质量问题重复发生。

14.1.1.4 Violation of the PPAP procedure (such as changing the materials, subcontractor, processing and checking standard without approval).
违反 PPAP 程序（如擅自更改原材料、分供方、工艺、检验标准等）。

14.1.1.5 Result in great impact or loss on SGM (such as PT/GA main production lines downtime over 10 minutes, or sub production lines downtime over 30 minutes, or DR/DRL problems occur more than 20 times one day, or the score of GCA is above 50).
对 SGM 造成重大影响或损失（如：停线时间超过 10 分钟；或 DR/DRL 问题发生频次一天超过 20 次；或有超过 50 分的 GCA 问题）。

14.1.1.6 During GP12, quality defects occur in SGM.
GP12 期间，在 SGM 发生质量缺陷。

14.1.1.7 Different quality problems occur more than 3 times within 6 months for the same part.
6 个月内同一零件发生不同质量问题 3 次或以上。

14.1.1.8 Quality Spills
质量溢出。

14.1.2 Level-2 Controlled Shipping:
实施二级受控发运的条件：

14.1.2.1 The suppliers under Level-1 Controlled Shipping still cannot contain the problems.
若在实施一级受控发运以后该质量问题仍重复发生。

14.1.2.2 Quality Spills
质量溢出。

14.1.2.3 Violation of the PPAP procedure (such as changing the materials, subcontractor, processing and checking standard without approval).
违反 PPAP 流程并造成质量问题（如擅自更改原材料、分供方、工艺、检验标准等）。

14.1.2.4 Extremely serious warranty quality problems.
售后特别重大质量问题。

14.1.2.5 Impact SGM normal production plan and impact engine or transmission case or vehicle shipping.
影响 SGM 正常生产计划及影响发动机、变速箱、整车发运的。

14.2 Requirement for the supplier under Controlled Shipping:
对受控发运供应商的要求：

14.2.1 Suppliers under Level-1 Controlled Shipping shall:
一级受控发运的供应商需：

14.2.1.1 Immediately set up a containment area for specific quality issues separate from production and check area.
立即针对具体的质量问题，建立与现生产、检查区域独立的遏制区域。

14.2.1.2 Inform other customers who use the same part of the nonconformance, and take containment activities as necessary.
通知其它使用相同零件的顾客，告知该不合格情况，并且根据需要采用遏制行动。

14.2.1.3 Track the break point of nonconforming part.
跟踪不合格零件的断点。

14.2.1.4 Stick a green round label (diameter 3.2 ~ 5 cm) on the product or beside the shipping label (confirm with SQE) and mark it with “CS1” and have the signature of supplier quality top management.
在产品上或发运标签旁（与 SQE 确认）贴上绿色圆形（直径 3.2~5 CM）标签，并在其上加印“CS1”字样, 由供应商主管质量的 最高领导签字。

14.2.1.5 Provide plant layout, work instructions, space and tooling needed for CS1 implementation.
提供执行一级受控发运所需的工厂布局、作业指导书和工装。

14.2.1.6 Initiate 100% inspection before shipping, and post inspection results in containment area.
开始发运前 100%检验行动，并在遏制区域公布检验结果。

14.2.1.7 Conduct daily meeting to review relevant quality data and results, and ensure the corrective actions taken are effective.
每日组织会议来评审相关质量数据和结果，确认纠正行为有效。

14.2.1.8 Determine the root cause of the problem, develop and perform the permanent corrective actions.
寻找问题的根本原因，制订、执行长期纠正措施。

14.2.1.9 Update appropriate quality documentation (such as Process Flow Chart, PFMEA, Control Plan, Work Instructions, etc).
更新相关的质量文件（例如，过程流程图，PFMEA，控制计划，作业指导书等）。

14.2.1.10 Meet the exit criteria, request exit, and provide supporting documents.
满足退出的标准，提出退出申请，并提供相关的支持文件。

14.2.2 Suppliers under Level-2 Controlled Shipping shall:
二级受控发运的供应商需：

Besides the requirements for suppliers in CS1, the check items of Level-2 Controlled Shipping can be decided by SGM based on part defection and significance, and 100% inspection before shipping is performed by the third party assigned by SGM at the supplier’s expense. The third party list assigned by SGM could be obtained from relevant SQE through SGM internal website. The third party performing the inspection shall stick on the product or beside the shipping label a green round label (diameter 3.2~5cm) marked with “CS2” and signed by third party inspector.

除参照一级受控发运对供应商的要求外，由 SGM 根据零件缺陷和重要程度确定检查项目，并由 SGM 指定的第三方对供应商实施发运前 100％检查，费用由供应商承担。SGM 指定的第三方清单可以通过相关 SQE 在 SGM 内部网上获得。实施检查的第三方在产品上或发运标签旁贴上绿色圆形（直径 3.2~5 CM）标贴，印有“CS2”字样，并由第三方检查人员签名。

14.2.3 Requirements for the Containment Area:
对遏制区域的要求:

14.2.3.1 The containment area shall be visualized (clearly separated from other areas) and be sufficiently lighted and equipped. Logistic routes and production status shall be determined.
遏制区域必须做到目视化（与其他区域明确区分），并且有充分的照明和设施，必须明确物流线路和产品的不同状态。

14.2.3.2 Rework cannot be done in the containment area.
遏制区域内不能进行返工。

14.2.3.3 The containment area shall be separate from supplier's production process
遏制区域必须与供应商的生产过程独立。

14.2.3.4 The nonconformance, measurements, action plan and status, and results of containment activities should be displayed on information board or other visible locations in the containment area.
在信息墙或遏制区域其他显著位置公布不合格情况、措施、行动计划和状态、以及遏制行为的结果。

14.2.3.5 Relevant charts and data shall be updated every day on a timely basis, and reviewed by supplier management.
相关的图表、数据必须每天及时更新，并由供应商管理层进行评审。

14.2.3.6 The resolution process and reaction plan should be developed for the problems, and relevant data and information should be recorded.
制定出现问题的解决流程和反应计划，并记录相关的数据和信息。

14.2.3.7 The operators in the containment area shall be sufficiently trained. There should be work instructions, quality metrics, boundary sample (when applicable), appropriate tooling and equipment in the work site.
遏制区域相关操作人员必须充分培训，在工作现场应有工作指导书、质量标准、边界样本（适用时）、相关工具和设备等。

14.2.3.8 When applicable, preventative maintenance should be performed
适用时，应进行预防性维护。

14.3 Entry and exit procedure of controlled shipping:
受控发运进入和退出程序：

14.3.1 Level-1 Controlled Shipping:
一级受控发运：

14.3.1.1 Requested by SQE (SQE of each production base), affirmed by commodity SQE manager, approved by SQ&D senior manager and director, and submitted for approval of Purchasing Executive Director.
由主管 SQE 提出，SQ 专业组经理确认，SQ&D 高级经理及总监批准，报采购部执行总监批准。

14.3.1.2 Notify the Director of Production Purchasing and Receiving Department (PC&L) of SGM.
通知 SGM 生产采购总监和物流部（PC&L）总监。

14.3.1.3 To exit Level-1 Controlled Shipping, requested by supplier quality department, affirmed by SQE and SQE commodity manager, approved by SQE senior manager.
退出一级受控发运，由供应商质量部提出申请，由 SQE 确认，SQ 专业组经理确认，SQ&D 高级经理批准。

14.3.2 Level-2 Controlled Shipping:
二级受控发运:

14.3.2.1 Requested by SQE (SQE of each production base), affirmed by commodity SQE manager, approved by SQ&D senior manager and director, and submitted for approval of Purchasing Executive Director.
由主管 SQE 提出， SQ 专业组经理确认，SQ&D 高级经理及总监批准，报采购部执行总监批准。

14.3.2.2 When applicable, notify the superior department responsible for the supplier.
适用时，通报供应商主管上级部门。

14.3.2.3 Notify the Director of Production Purchasing and Receiving Department (PC&L) of SGM and the special person of SQE notifies the 3rd Part for supplier quality system authentication.
通知 SGM 生产采购总监和物流部（PC&L）总监及 SQE 专人通知供应商质量体系认证方。

14.3.2.4 To exit Level-2 Controlled Shipping, requested by supplier quality department, affirmed by SQE and SQE commodity manager, approved by SQE senior manager.
退出二级受控发运时，由供应商质量部提出申请，由 SQE 确认，SQ 专业组经理确认，SQ&D 高级经理批准。

14.4 Exit Criteria of Controlled Shipping:
受控发运退出准则：

14.4.1 Level-1 Controlled Shipping:
一级受控发运：

14.4.1.1 It is at least 20 working days without similar problems since entering into the controlled shipping.
在受控发运开始起至少 20 个工作日内无类似问题发生。

14.4.1.2 Conduct PCPA per attachment 5 “Supplier Quality Control Plan Audit Report”. Generally one PCPA audits the process control of one or one type of products and shall cover every key process control elements of the product. Supplier shall keep record of identified issues during PCPA per “For USE- Action Form” in attachment 5, develop documented corrective action report on a timely basis, and shall be responsible for implementing the corrective actions. Supplier can exit CS till the result from PCPA is 70 or above.
对该产品进行控制计划审核，按“控制计划审核表”实施。一般评审针对发生问题的这个或这类产品进行，并覆盖该产品生产的各主要过程，供应商对所有不符合项按“控制计划审核表”中“For USE-Action Form”表进行记录，制定整改计划，并组织落实整改项目，直至超过 70 分，供应商方能退出受控发运。

14.4.2 Level-2 Controlled Shipping:
二级受控发运：

14.4.2.1 It is at least 20 working days without similar problems since entering into the controlled shipping.
在受控发运开始起至少 20 个工作日内无类似问题发生。

14.4.2.2 Conduct PCPA per attachment 5 “Supplier Quality Control Plan Audit Report”. Generally one PCPA audits the process control of one or one type of products and shall cover every key process control elements of the product. Supplier shall keep record of identified issues during PCPA per “For USE- Action Form” in attachment 5, develop documented corrective action report on a timely basis, and shall be responsible for implementing the corrective actions. Supplier can exit CS till the result from PCPA is 70 or above.
对该产品进行控制计划审核，按“控制计划审核表”实施。一般评审针对发生问题的这个或这类产品进行，并覆盖该产品生产的各主要过程，供应商对所有不符合项按“控制计划审核表”中“For USE- Action Form”表进行记录，制定整改计划，并组织落实整改项目，直至超过 70 分，供应商方能退出受控发运。

14.4.2.3 Controlled shipping exit from Level2 to Level1.
退出二级后进入一级受控发运。

14.4.3 When SQE do the Control Plan Audit on the shop floor after the application for exiting control shipping by suppliers, suppliers are responsible for informing certification organization involved in the audit. For serious nonconforming items founded in the audit, if

necessary, SQE can notify the superior register management organization of supplier relative authentication.
供应商提出退出受控发运申请后，SQE 组织对供应商现场进行控制计划审核时，供应商负责通知相关认证机构派员参加审核。对审核过程中发现的重大不合格项，必要时，SQE 可以通报相关认证机构的上级注册管理机构。

14.4.4 When exiting from Level-1 Controlled Shipping or Level-2 Controlled Shipping, suppliers give exiting application and provide the entire package including PCPA, relative archives about corrective actions, FMEA and control plan, etc., all of which should be approved validated by SQE senior manager.
退出一, 二级受控发运均需供应商提出退出申请给 SQE，同时提供全套文件。包括 PCPA、整改措施的相关文件、PFMEA 及控制计划等，并经 SQE 高级经理批准有效。

14.5 Archives and Records:
有关记录：

- PCPA
  控制计划审核
- Relative archives about corrective actions
  整改措施的相关文件
- PFMEA
  过程失效模式及后果分析
- Control plan
  控制计划
- Process flow chart
  过程流程图

十五、 Production and System Audit
产品与体系审核

15.1 Flying Audit: To ensure product consistency, SGM SQE have the right do product and process audit without prior notice in the case of suppliers, and follow GP-5 flow depending on the severity of the audit results.
飞行检查：为确保产品的一致性，SGM SQE 有权利在不事先通知供应商的情况下，对供应商进行产品和过程突击审核，审核结果视严重程度按 GP-5 进行操作。

15.2 During the start of production (including pre-launch/launch), based on suppliers' advanced production development and past supply performance, SGM may designate the third party to have 100% inspection of supplier's production at the supplier's, product launch warehouse (launch warehouse) and the third party's for high-risk parts or high-risk suppliers. If all products are qualified, SGM will pay related costs; if nonconformance is found in the inspection, all associated costs should be paid by suppliers.
在生产启动阶段（包括 pre-launch/launch），根据供应商产品前期开发情况和以往供货表现，对于高风险零件或高风险的供应商，SGM 可以指定第三方，在供应商处、生产启动仓库（launch warehouse）、或第三方处，对供应商供货的产品进行 100％检验。如果所有产品检验合格，由 SGM 支付相关费用; 如果检验发现不合格品，则所有相关费用由供应商支付。

15.3 According to the supplier's past quality performance, SGM may designate the third party to do 100% inspection of the supplier's products for high-risk parts or high-risk suppliers, and / or have supplier's quality system audit (including initial time and in volume time of supply).
根据供应商的以往质量表现，对于高风险零件或高风险的供应商，SGM 可以指定第三方，对供应商供货的产品进行 100％检验，或/和对供应商的质量体系进行审查（包括供货初期和批量供货期间）。

15.2.1 For the production audit, if all products are qualified as a result of 100% test, SGM will pay related costs; if nonconformance is found in the tests, all associated costs should be paid by suppliers.
对产品审核，如果 100％检验结果所有产品检验合格，由 SGM 支付相关费用; 如果检验发现不合格品，则所有相关费用由供应商支付。

15.2.2 For the system audit, if no major nonconformance or other quality Spills are found during the supplier quality system audit, audit fees will be paid by the SGM. If the audit found major nonconformance or other quality spills (such as changing the materials, subcontractor, processing and checking standard without approval, etc.), the related audit fees should be paid by suppliers.
对体系审核，如果对供应商的质量体系审核未发现重大不合格或其他重大问题，审核费用由 SGM 支付。如果审核发现供应商存在重大不合格或其他重大问题（如擅自更改原材料，擅自更改分供方，擅自对过程、工艺作出重大更改等），则相关审核费用由供应商支付。

15.4 Referring to supplier repair process, SGM relevant department or designated third party will carry out audit aperiodically according to supplier's actual repair implementation situation. If any serious problem found, GP-5 process will be applied and the relevant cost should be paid by suppliers.
针对供应商返修过程，SGM 相关部门或指定第三方，不定期对供应商返修流程以及实际实施情况进行审核。审核中如发现重大问题，进入 GP-5 流程，相关审核费用由供应商支付。

15.5 For parts after PPAP approval, SGM have the rights to spot check aperiodically. Parts for test are provided by suppliers, and sampling methods are decided by SGM. If test results can't meet engineering specifications, all associated testing costs should be paid by suppliers.
对已经获得 PPAP 批准的零件，SGM 保留不定期入库抽检的权利。试验零件由供应商提供，抽样方式由 SGM 决定。如试验结果不满足工程规范要求，则试验的相关费用由供应商支付。

十六、 Supplier Plant Site Change
供应商易地生产

16.1 It is applicable to supplier which part production plant site changes after approved PPAP.
本要求适用于所有 PPAP 批准后，零部件生产供应地点发生转移的供应商。

16.2 Supplier which changes plant site shall satisfies SGM requirements, including part quality, production ability, process control, package and shipping, etc...

供应商负责确保在零部件发生易地生产时，产品质量、产能、过程、包装、供货等满足 SGM 的要求。

16.3 Supplier shall carry out PPAP, GP9 and GP12 again when part production plant site changes. If applicable (SQE evaluate potential risk when something changes greatly as production system, control system and employee), SQE/SDE audit supplier quality system at supplier new plant site

供应商零件发生易地生产时，要重新进行 PPAP、GP9 和 GP12。适用时（如供应商易地生产后生产体系、控制体系、人员等发生重大变化，或其他 SQE 认为有较大潜在风险时），由 SQE/SDE 对供应商新的生产场所进行质量体系的确认和检查。

16.4 When planning to change plant site, at first time (at least 6 month before production in new plant) supplier shall apply in written to buyer and confirm information bellowing:

供应商的生产供应地点计划发生转移时，需在第一时间（规划初期，最迟不得晚于易地生产实施前 6 个月。）书面向 Buyer 提出申请，并明确以下信息：

16.4.1 Responsible official appointed and organization structure relevant.
易地生产过程中的供应商指定负责人和相应的组织机构

16.4.2 Part affected (including part name, part number, vehicle model)
影响的零件（零件名、零件号，车型）

16.4.3 Former site and new site
原地点和转移地点

16.4.4 Corresponding timing chart (including building of workshop and auxiliary facility, plan of equipment installation, time of commissioning and trial production, time of PPAP, GP9 and PTR, plan of employee enrollment and training, etc…)
相应的时间计划（包括厂房和辅助设施建设，计划的设备安装、调试和试生产日期、PPAP 和 GP9、PTR 日期，人员招聘和培训计划）等信息。

16.4.5 Information from old and new plant site in the process of site changing, including part production plan, inventory plan, logistic guarantee (affirmed by PC&L Supply Chain coordinator), production capacity, etc....
易地生产过程中的新旧生产地的零部件生产计划，库存计划和物流保证（与 PC&L 供应链协调工程师确认）、产能计划。

16.4.6 ISO/TS16949 Certification Plan for new plant site.
新生产场所的 ISO/TS16949 的认证计划。

16.4.7 Other information related.
其他有关信息。

16.5 Buyer calls SQE, PE and PC&L Engineer together for coordination. Buyer should inform plan to related department and carry out risk assessment.

Buyer 召集 SQE、PE、PC&L 工程师召开协调会议，将供应商易地生产的计划及时通报相关各方并进行风险评估。

16.6 Plant site change shall be approved in written by SGM.
供应商易地生产需经 SGM 书面同意后方可实施。

16.7 In the process of plant site change, supplier should coordinate with buyer, SQE, PE, PC&L Engineer. Supplier shall record problem in GM1927-5 issue list, including correct measure, responsibility and action time, etc.
易地生产实施过程中出现的问题，供应商应及时与 Buyer、SQE、PE 及 PC&L 供应链协调工程师沟通、解决，并在 GM1927-5 问题清单中记录，明确措施、责任人和计划日期。

16.8 Supplier should pass ISO/TS16949 certification in one year after production in new plant site.
供应商需在易地生产后一年内完成新生产场所的 ISO/TS16949 认证。

16.9 Before get PPAP full approval, Supplier reports regularly (at least once a month) the performance status to Buyer and SQE in the process of production location transfer, and updates timing chart and issue list on a timely basis.
在 PPAP 完全批准前，供应商定期向 Buyer 和 SQE 汇报（至少每月一次）易地生产过程中的工作状态，并及时更新时间进度计划表和问题清单。

16.10 The parts produced by the supplier at the new location after transfer can be shipped to SGM only after SQE has completed production part approval according to PPAP process (unless PAA specially approval)
供应商易地生产后由新基地生产的零件，在 SQE 按 PPAP 程序完成生产件批准之前，不得向 SGM 发运（除非有 PAA 特别许可）。

十七、 New Business Hold
停止新业务

SGM decides whether apply New Business Hold Process based on supplier's performance of CS, customer satisfaction PRR, the certificate validity of ISO/TS 16949 and promises fulfillment.
SGM 根据供应商的受控发运、顾客满意 PRR、ISO/TS 16949 证书的时效性及承诺书的履行等表现决定是否停止其新业务。

十八、 Yearly Excellence Supplier Evaluation
年度优秀供应商评选

18.1 **Quality system and quality performance**: ISO/TS16949 certification status, internal audit and process audit result, process stability, continual improvement, KPC, PPM, PR&R, CS, Downtime and other quality data; Respond for Quality: Project management and project development capability, subcontractor management; Quality cost analysis and development, measurement gage and lab management.
质量体系和质量表现： ISO/TS16949 认证情况，体系运作效果和效率，内审和过程审核情况，过程稳定性，持续改进工作，KPC 能力，PPM，PR&R，受控发运，停线时间和其它质量指标;

质量方面的响应; 项目管理和项目开发的能力，分供方管理; 质量成本分析和改进，测量器具和试验室管理。

18.2 **Service**: delivery on time, part package, consistency with delivery plan, supplier service quality and support etc.
服务：到货准时率，零部件包装，与交货计划的一致性，供应商服务质量和支持等。

18.3 **Technology**: system integration capability and development capability, technology support capability, value engineering and DFMEA, QFD, DOE etc. Application, part development cycle, CAD, CAM sourcing, tooling and checking fixture manufacturing or checking and accepting capability, test capability.
技术：系统集成能力和开发能力、技术支持能力，价值工程和 DFMEA、QFD、DOE 等工具应用情况，产品开发周期，CAD、CAM 资源，模具、检具制造或验收能力，试验能力。

18.4 **Cost**: cost reduce implement, purchasing node conform status, part price competition.
成本：成本下降实施、采购节点符合情况、产品价格水平竞争力、配套率。

18.5 **Lean production and continuous improvement**: lean production organization, implement status, management lever and employee consciousness, lean production training and implement plan; lean production and improvement technology capability and application(5S, visual management, TPM, pull, SMED, POKA-YOKE,VA/VE etc.); lean status of layout, logistics, production, plan; application of product line and 6 Sigma etc. Tools.
精益生产和持续改进：精益生产组织、实施情况，管理层和员工意识，精益生产的培训和实施计划; 精益生产和持续改进技术的能力和应用（5S、目视管理、TPM、拉动、SMED、POKA-YOKE、VA/VE 等）; 布局、物流、生产、计划的精益程度; 现场改善和 6 Sigma 等工具的应用。