SMR Global Supplier Manual Appendix E – GM Customer Specific Requirements for Suppliers

As per General Motors Customer Specific Requirements for IATF 16949:2016
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SMR Global Supplier Manual
Appendix E – GM CSR

SMR Global Supplier Manual - Additional Customer Specific Requirements

Scope of this Document

The scope of this document is to ensure compliance to customer requirement by sub-suppliers of SMR Automotive who are supplying for any GM project. This document is listing requirements for these suppliers in addition to standard IATF16949 requirements and in addition to standard SMR requirements.

Organizations shall refer to the CG4338 GM 1927 03 Supplier Quality Statement of Requirements (SOR), for requirements for organizations supplying parts and materials to General Motors.

IATF 16949:2016 Deviations (Waivers)

Organizations requesting deviations (waivers) for IATF 16949:2016 Certification must contact their GM SQE and complete the GM 1927 70 SQ IATF 16949 Certification Waiver request and obtain GM Supplier Quality Leadership approval. The completed and approved IATF 16949 Certification Waiver request will be stored in GM's Supplier Certification Management System (SCMS) under the requesting Organization's DUNS.

Responsibility

Suppliers for SMR component(s) for a GM product shall meet all requirements listed in this document during the lifetime of the project. This includes but is not limited to:

- Regularly checking for updates of this document on www.smr-automotive.com
- Ensuring availability and awareness of related GM standards and requirements mentioned in this document.
- Ensuring requirements are met in their supply chain.

1.0 Record Retention (IATF 16949 section 7.5.3.2.1)

Supplier's business records must be maintained as specified in GMW15920. PPAP Records – Production Run + 50 years. Organizations can purchase GMW documents from IHS at www.global.ihs.com.

2.0 Customer-Designated Special Characteristics (IATF 16949 section 8.2.3.1.2)

The organization shall follow General Motors **Key Characteristic Designation System Process GMW15049**. Key characteristics shall be applied as per IATF16949:2016 8.3.3.3 Special Characteristics.

3.0 Second-party audits (IATF 16949 section 8.4.2.4.1)

Second-party auditors must meet the requirements in clause 7.2.4 Second-Party Auditor Compliance in IATF 16949 (latest revision) plus meet these additional requirements:

1. The organization (2nd party) must be IATF 16949:2016 registered and not on suspension.
2. The Second Party Auditor must be a qualified ISO Lead Auditor, or a qualified internal auditor with evidence of their successful completion of training, and a minimum of five internal ISO/TS16949:2009 and/or IATF 16949:2016 audits under

the supervision of a qualified lead auditor.

3. The organization may conduct (2nd party) audits of their suppliers as identified using their supplier development risk management analysis.
4. For initial certifications, the first second party audit should use Table 5.2 to determine the initial days for subsequent second party use the recertification days Table 5.2. See Automotive Certification Scheme for IATF 16949 Rules for Achieving and Maintaining IATF Recognition, section 5.2, Table 5.2 Minimum audit days.
5. The second party audits shall identify an acceptable passing level and include a scoring or ranking to determine which suppliers have passed. The organization shall have documented evidence that they review and follow up on all non-conformances identified in the second-party audit with the intent to close these non-conformances.

4.0 Supplier development (IATF 16949 section 8.4.2.5)

When a supplier to an organization is so small as to not have adequate resources to develop a system according to IATF16949:2016 or ISO 9001:2015, certain specified elements may be waived by the organization of their supplier. The organization shall have decision criteria for determining “specially designated small suppliers”. Such decision criteria shall be in writing and applied consistently in the application of this provision. The existence and use of such decision criteria shall be verified by 3rd party auditors.

NOTE 1: ISO 9001:2015 and IATF 16949:2016 Minimum Automotive Quality Management System Requirements for Sub-Tier Suppliers contain fundamental quality management system requirements of value to any size of provider of production materials, production, service, and accessory parts, or heat treating, plating, painting or other finishing services. There are several methods to implement a compliant system, so it is recognized that a simpler Quality Management System approach could be used for the smaller suppliers of organizations to which IATF 16949:2016 clause 8.4.2.3 applies.

NOTE 2: “Small” may also refer to volume supplied to automotive.

5.0 Control of Changes (IATF 16949 section 8.5.6.1)

The documented process shall require consideration of a production trial run for every product and process change. Results of the trial run shall be documented

6.0 Customer Satisfaction – Supplemental (IATF 16949 section 9.1.2.1)

New Business Hold

New Business Hold General Motors will notify the organization if the organization is placed in the Special Status of New Business Hold. General Motors can submit an IATF Performance Complaint against the organization based on the issues leading to the Special Status of New Business Hold. The Performance Complaint process follows the IATF Certificate Decertification Process*

See Automotive Certification Scheme for IATF 16949, Rules for Achieving and Maintaining IATF Recognition, section 8.0

GM Quality Performance Requirements (also known as GM QPR)

Organizations shall achieve and maintain a Sourceability Level of 3, 4 or 5. The organization whose Sourceability Level falls below Level 3, a performance complaint will be submitted against the organization on behalf of GM. The submission of the performance complaint will lead to the initiation of the Certificate Decertification Process*.

> *See Automotive Certification Scheme for IATF 16949, Rules for Achieving and maintaining IATF Recognition, section 8.1-8.7.
>
> Quick Reference Guides explaining supplier performance requirements are available through https://www.iatfglobaloversight.org/oem-requirements/quick-reference-guides/

NOTE 1: Two conditions where a major nonconformance is not submitted for Sourceability Level < 3 are:
- Sourceability Level 0 – With no production receipts nor any quality SPPS records in the last 12 months; or
- Not certified to IATF 16949 and Mfg. DUNS number not included in any other site certification as a Remote Site or extended manufacturing site.

NOTE 2: The GM system Sourceability Report will indicate a Sourceability Level of 1 or 2 for those organizations not meeting the GM Quality Performance Requirements.

Organizations shall refer to the **GM 1927 17 SQ Processes and Measurement Procedure**, for metrics and status definitions.

CSII (Controlled Shipping Level 2)
The organization shall notify its Certification Body within 5 business days after being placed in Controlled Shipping – Level 2 (CS II) Status. The Certification Body is not required to issue a nonconformance for an organization placed in CSII status.

For CSII activities that are open during an audit, the organization's Certification Body shall verify that an effective corrective action is in process and, if closed, that the corrective actions have been implemented and read across to the entire organization's site for similar processes and/or products. The organization's Certification Body shall also investigate any CSII activities that have occurred and were closed between surveillance audits.

NOTE: The GM condition of CSII (Controlled Shipping – Level 2) is a performance indicator of problems in an organization's product realization process. The CSII condition should have resolution, or credible resolution and corrective plans in place, which are confirmed by the customer.

7.0 Quality management system audit (IATF 16949 section 9.2.2.2)

The organization shall complete on an annual basis a GM 1927 30 Quality Management System Gap Assessment for each manufacturing DUNS location with a Sourceability Level under 3. The completed assessments shall be uploaded into the Supplier Certification Management System (SCMS) under the DUNS location the assessment was completed. The identified gaps shall be closed within 60 days from the assessment.

8.0 Manufacturing process audit (IATF 16949 section 9.2.2.3)

The organization shall incorporate an internal layered process audit process to assess compliance with standardized processes, to identify opportunities for continuous improvement, and to provide coaching opportunities.
The layered process audit is led by Management who are competent to conduct the audits.
The process shall include:

1. A schedule including frequency of audits and locations of planned audits.
2. Audit layers must be used and include different levels of employees, including top management.
3. Customer complaints or rejections trigger a layered audit on the process that was the cause of the issue.
4. All departments within the organization.
5. All findings are recorded and measured for improvement.
6. Findings that cannot be corrected during the audit shall move to an action plan for monitoring to closure.
7. Records of audits shall be maintained.
8. Layered audit questions shall be reviewed periodically and changed if needed to focus on the organization's weaknesses.
9. Layered process audit shall be done as part of corrective action verification activities.

In addition to layered process audits the organization shall audit specific manufacturing processes (see chart below) annually to determine their effectiveness. The applicability and effectiveness of these processes (as applicable) shall be determined utilizing the most current version CQI standard (see chart below). The evaluation of effectiveness shall include the organization's self-assessment, actions taken, and records maintained.

NOTE 1: The assessment must be performed by a competent auditor. An auditor is competent if they meet the following requirements:

- They shall be a qualified ISO 9001:2015 Lead Auditor, or a qualified internal auditor with evidence of their successful completion of training, and a minimum of five internal ISO/TS 16949:2009 and/or IATF 16949:2016 audits under the supervision of a qualified lead auditor.
- They shall have a minimum of 5 years' experience with the process that is being audited or a combination of experience and education in the specific process.

NOTE 2: Audit findings must be addressed in an action plan, with champion(s) assigned and reasonable closure dates.

Process	Number	Title
Heat Treating Processes	CQI-9	Heat Treat System Assessment
Plating Processes	CQI-11	Plating System Assessment
Coating Processes	CQI-12	Coating System Assessment
Warranty Processes	CQI-14	Automotive Warranty Management
Welding Processes	CQI-15	Weld System Assessment
Solder Processes	CQI-17	Soldering System Assessment
Plastics Molding Processes	CQI-23	Molding System Assessment
Casting Processes	CQI-27	Casting System Assessment
Wiring Harness Processes	CQI-35	Wiring Harness Quality Guidelines

9.0 Product audit (IATF 16949 section 9.2.2.4)

The organization shall perform quality-focused checks on each shift.
The organization shall have a process for final inspection and/or Customer Acceptance Review & Evaluation (CARE). Early Production Containment (EPC) shall be performed as required during launch and until released by the organization's assigned SQE or designate and per GM 1927 28 Early Production Containment (EPC).

1. Final inspection shall be performed on all finished products prior to shipping. This inspection can be 100% inspection or less based on risk.
2. EPC inspection checks shall be included at an upstream inspection station (final inspection/CARE).
3. Quality checks shall be included in standardized work. Point, touch, listen, and count inspection methods are incorporated.
4. Successive production/quality checks shall be increased in cases of high risks such as model launch, pass-through components and characteristics pass through, major changes, shut down (see clause 8.5.1.4) or customer feedback.

10.0 Problem Solving (IATF 16949 section 10.2.3)

The supplier's documented problem-solving process shall include:

1. Tracking of issues through closure.
2. Daily review of issues by a multi-disciplined team including plant management.
3. Daily reviews are documented.
4. All levels of the organization are included in the problem-solving process.
5. Robust method to identify the verifiable root cause(s) of each issue.
6. Timely closure of corrective action(s) including exit criteria.
7. Initial containment is well documented using a containment worksheet or similar.

11.0 Error-proofing (IATF 16949 section 10.2.4)

Error proofing devices shall be tested to failure or simulated failure at the beginning of each shift at a minimum, otherwise according to the control plan. In the event of error proofing device failure, a reaction plan that includes containment should be included in the control plan.

The organization shall keep a list of all error proofing devices and identify which can be bypassed and which cannot (also see clause 8.5.6.1.1). The bypass determination shall consider safety, severity and overall RPL rating.

12.0 Continual improvement – supplemental 10.3.1

The organization shall have a process for effective review of PFMEA of all manufacturing parts and processes to occur annually at a minimum. This review shall consider, at a minimum, critical, safety, and high-risk items. The organization shall incorporate tools such as reverse PFMEA or other similar methods to assist in the PFMEA review. PFMEA review output shall include an updated PFMEA, record of the changes made (or record that no changes were made), and identification of the team involved in the review.

Critical, safety, and high-risk items (such as priority from Risk Limiting Method, high RPL or equivalent) shall have an action plan which includes recommended actions, responsibility, and timing.

Reviewing a PFMEA for corrective action process does not meet the requirement of annual review unless there is evidence that critical, safety, and high-risk items are considered in addition to the corrective action issue. A proactive review approach is required.

13.0 Warranty Management Systems (IATF 16949 section 10.2.5)

Automotive Warranty Management (AWM)

Organizations providing production and non-exempt service parts and components to GM shall support improvement in Customer satisfaction through pursuit and achievement of warranty reduction targets established by GM, where applicable. Organizations shall use the latest available edition of the AIAG CQI-14

Automotive Warranty Management to integrate warranty assessment into their quality management system. Evaluation of integration effectiveness shall be based on evidence that the Organization has a process in place that includes elements such as:

- Internal auditors identified.
- An established schedule for self-assessment (including evidence of schedule adherence).
- A defined continuous improvement process (including evidence of goal setting and performance evaluation).
- A defined corrective action process (including evidence of actions taken and verification of effectiveness);
- Organization-controlled record keeping (7.5.3.2.1).
- Progress monitoring (including monthly evaluation of Organization's performance to warranty reduction targets established by GM).
- A Supplier development process (8.4.2.5) identified for applicable Suppliers to the Organization.

Evaluation shall be by self-assessment. The self-assessment shall be conducted annually but may be repeated as needed. The self-assessment may be conducted as part of the Organization's internal quality audit or conducted separately. The self-assessment shall be conducted using the self-assessment spreadsheet tool from CQI-14. The completed spreadsheet shall serve as a record of self-assessment. Implementation of Automotive Warranty Management shall proceed in three stages:

1. Organization identifies and implements necessary changes to quality management system processes, trains responsible personnel and conducts initial, "baseline" self-assessment.
2. Organization establishes internal performance goals, develops prioritized corrective action plan to achieve these goals and prepares an assessment schedule.

3. Organization monitors performance continues with self-assessments and updates corrective action plan as required to meet GM requirements and internal improvement goals or maintain goal-level performance.

Organization's relationship to GM	Existing Vehicle Program	New Vehicle Program
New Supplier	Complete implementation through Stage 2 within six months of award of business. Implementation through Stage 3 to follow within one year of start of production.	Complete implementation through Stage 2 before Commercial Launch Implementation through Stage 3 to follow within six months of Commercial Launch
Current Supplier	Full implementation through Stage 3 required.	Follow timing for "New Supplier/ New Vehicle Program" (above) for new parts or components.

History of Revision

No.	Cause of modification	Date	Modifier	Approved
1	First issue	16.10.2017	Judith Robertson	Steffen Dehner
2	Update GM CSR	10.07.2019	Bill Kellogg	Steffen Dehner
3	Update Logo	24.11.2020	Maria Reyes	Judith Robertson
4	Update to GM CSR effective Dec 15, 2020	07.01.2021	R. Hochmuth	Rambir
5	Update to GM CSR dated August 31, 2023	05.02.2024	Bill Kellogg	Judith Robertson
6	Update to GM CSR dated January 31, 2025, and March 1, 2025	06.05.2025	Bill Kellogg	Judith Robertson