



Summary Document for All Product Commodities

1 Introduction

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. This standard contains the common, Program-Independent information for the Statement of Requirements (SOR). The SOR describes the engineering processes, tasks, events, and deliverables required of the Supplier to provide a Product/Commodity for the GM vehicle program(s). The SOR takes effect at the time of Supplier selection and continues through the phases of the program(s) identified in 1.3.

Note: All references to any Appendix are not internal to this standard. They are references to other documents that are part of the SOR package.

1.2 Complete Bill of Material With Cost. The Supplier shall submit a complete Bill of Material (BOM) to Buyer's Buyer in the following time frame:

- Award of Business - Complete assembly cost with a BOM of all parts in the assembly given to Advance Purchasing Buyer.
- Week 28 - A complete BOM to Service Engineering including all, service and non-service, component part numbers.
- Week 22 - A complete BOM to the Production Buyer and the Service Parts Buyer including all, service and non-service, component part numbers and cost.

1.3 Phases of the Program. The SOR will apply throughout the design, development, validation, pre-production, production, and service life phases of the Program(s) as described in Appendix B - General Program Description. The Program(s) schedule(s) will be monitored through the Advanced Product Quality Planning (APQP) and Control Plan process and reviewed at meetings between representatives of Buyer and Supplier.

Note: Program Applications, Duration, Model and/or Calendar Years. Refer to all applicable programs, model years and duration for a product/commodity as described in Appendix B - General Program Description.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

ISO/TS 16949

2.2 GM Standards/Specifications.

GMW3059	GMW14089	GMW15010	GMW15923
GMW3116	GMW14149	GMW15049	GMW16331
GMW3172	GMW14234	GMW15328	GMW17000
GMW3600	GMW14270	GMW15745	
GMW8518	GMW14573	GMW15862	
GMW14011	GMW14887	GMW15920	

2.3 Additional References.

2.3.1 The following references can be accessed at www.gmsupplypower.com.

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- CG2362 Engineering Design Requirements
- CG3266 Design Center Requirements
- Global Design infoBOOK
- GM1825 Supplier Technology Information Guide

2.3.2 Automotive Industry Action Group (AIAG) documents can be obtained by calling (248) 358-3003. If documents cannot be obtained via this telephone number, contact the Buyer's Buyer or the Buyer's Lead Engineer.

2.3.3 Advanced Product Quality Planning (APQP) and Control Plan Reference Manual.

2.3.4 The following item(s) are available through internal systems for integrated suppliers or obtainable from the GM Buyer for non-integrated suppliers.

Appendix A - RASIC

Appendix B - General Program Description

Appendix B1 - Lean Capacity Rates (LCR)

Appendix C/C1 - Component Technical Specification (CTS) or Subsystem Technical Specification (SSTS)

Appendix D - Program Deliverables

Appendix E1 - Manufacturing Process and Product Requirements

Appendix E2 - Manufacturing Bill of Process: Error Proofing

Appendix E3 - Manufacturing Error Proofing for Product and Process Design

Appendix E4 - (GMW14234) Ergonomic Engineering/Vendor Guidelines for New Products

Appendix E6 - (GMW15328) Pre-Production Tooling and Part Requirements

Appendices F, F1 or F2 - (CG2362) Engineering Design Requirements

Appendix F3 - Other Fastening Engineering Design

Appendix F11 - (GMW14149) Global Fastener Requirements

Appendix F12 - (GMW17000) Global Fastening Catalog

Appendix G1 - (GMW3600) Generic Supplier Analysis/Development/Validation Process Tasks and Deliverables

Appendix G2 - Analysis/Development/Validation (ADV) Process Tasks and Deliverables, Exceptions

Appendix J2 - Global Serviceability Requirements Addendum

Appendix K1 - (CG3266) Design Center Requirements

CG736 - Team Center Automotive Edition (TcAE) Database Request Form

E² Change Management Process

E² Work Order

Engineering Design Appendix

Examine Geometry Guidelines

Global Vehicle Development Process (GVDP) Release Progression

GM Best Practices and Lessons Learned (The supplier shall work with the GM responsible engineer to comprehend this requirement)

GM Dimensional Engineering Process - (GMW15745) GM Dimensional Engineering Supplier Requirements Guidelines)

GM Information Security Policy

GM Information Security Practices

GM Preferred Materials Catalog

GM Record Retention Schedule (GMRRS)

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3 Requirements

3.1 Order of Precedence. The respective terms and conditions of buyer's Request for Quotation (RFQ) and contract or purchase order are intended to be cumulative to and consistent with the provisions of the SOR. However, if there is any conflict among such terms and conditions, the following order of precedence applies:

- First: RFQ and contract or purchase order terms and conditions
- Second: SOR and Appendices
- Third: Other provisions, specifications, or documents (if any)

3.2 Supplier Engineering Organization and Key Corporate Personnel. Supplier shall provide Buyer with the following key management information:

- Engineering contact(s) with management responsibility for the resources assigned to the program(s)
- Corporate organization chart (Chairman, Corporate Executive Officer (CEO), top-line management)
- Supplier single-contact person for correspondence and to sign-off deliverables

3.3 Supplier Resource Plan and Program Support. Supplier shall prepare a Resource Plan that describes how the requirements of the SOR are to be achieved. The Resource Plan must define how the Supplier's organization will conduct all managerial functions (including engineering, program management, records management, general administration, and the supporting organization chart) that are necessary to assure timely completion of all SOR requirements.

The Resource Plan shall include a list of all resources allocated to the Program(s), a timing plan for when resources will be brought onto the program and fully trained, and where they will be physically located. The list shall be organized according to professional discipline with their function specified, name, phone number, and percent allocation to the program. Also, if requested, supplier shall provide a brief resume for each individual listed in the plan.

3.4 Buyer Program Personnel. Buyer key contacts and personnel assigned to the Program(s) are listed in Appendix B - General Program Description.

Supplier shall provide access to its facilities and those of its subcontractors for the Buyer and/or its designated representatives.

3.5 Sale of Product/Commodity to be Supplied and Developed for Buyer to Others. Except as expressly approved in writing by Buyer's Buyer, the sale of final assemblies or specific components developed and produced for Buyer under this or superceding contracts is prohibited to any parties outside of Buyer. This includes parts for Service.

3.6 Retention of Engineering and Manufacturing Information. This section summarizes the buyer requirements involving the retention of engineering and manufacturing information according to GMW15920 - Record Management for Suppliers. In general, the Supplier in accordance with the General Motors Record Retention Schedule (GMRRS) shall retain all engineering and manufacturing information for products supplied to General Motors. All information relating to GMRRS can be found on www.gmsupplypower.com website or by contacting the Buyer.

3.7 Document and Data Security. Supplier's role as an Integrated Supplier will provide Supplier and its employees with access to Buyer product, marketing plans, and technical information, which is proprietary to Buyer. Buyer Information will be exposed to Supplier employees both formally in their role in performing the SOR, and informally by their presence within Buyer workplace. Buyer Information will also be exposed to Supplier subcontractors and service providers. Supplier acknowledges that public disclosure of such information, or its use for other customers of supplier, will cause substantial harm to Buyer and will adversely affect Buyer willingness to do future business with supplier.

Although it is incumbent on Supplier to formulate, communicate, and enforce policies consistent with Supplier's responsibility to protect Buyer Information, Supplier shall, at a minimum, demonstrate adherence to the following:

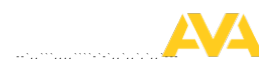
3.7.1 Information Security Requirements.

3.7.1.1 Follow any non-disclosure agreement commitments.

3.7.1.2 Buyer Information must not be released to the public through media interviews, publications, seminars, conversations, or in any other manner without a review procedure and Buyer management approval.

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3.7.1.3 Grant access to Buyer Information based only upon need-to-know.

3.7.1.4 All Supplier employees working on Buyer Information are required to sign an Intellectual Property Rights agreement. Form to be maintained at Supplier.

3.7.1.5 Supplier employees working on Buyer Information must safeguard all Buyer Information created, used or acquired in connection with their employment during and after their period of employment, including protection from unauthorized disclosure, modification, compromise, or destruction.

3.7.1.6 Copying and distributing Buyer Information must be strictly controlled in whatever media exists. Copying of copyrighted material is strictly prohibited without the permission of Buyer.

3.7.1.7 Develop disaster recovery plans and business resumption plans in the context of overall contingency management. Provide recovery capabilities for all stored Buyer Information based on the Buyer defined requirements.

3.7.1.8 A level of backup in place for Supplier computing and communication network devices consistent with the level of risk and the impact upon the Buyer business unit.

At a minimum, supplier's critical hardware must have a unit Uninterruptible Power Supply and an alarming tool to annunciate all monitored alarms.

Supplier must have recovery capability from any system failure so as to ensure uninterrupted part supply to the assembly plant. Supplier must be able to document and demonstrate how they run their processes without their primary system.

Supplier must have good spare premise network communications equipment available that can be obtained and installed without interruption of parts deliveries to GM.

3.7.1.9 Remove all access capabilities to Buyer Information (e.g., personal identification cards, access cards, keys, identification codes and passwords, Buyer computing and communication resources) when Supplier employees transfer or terminate their employment.

3.7.1.10 Suspicion or occurrence of any fraudulent activity, unauthorized disclosure, modification, misuse, or disposal of Buyer Information, including intrusions or incidents of impaired or denied availability to the Buyer computing or communications environment must be reported promptly to Buyer Corporate Security.

3.7.1.11 Understand the Buyer Data Classification process explained in the GM Information Security Policy and GM Information Security Practices and protect all Buyer Information in a manner commensurate with its proprietary classification.

3.7.1.12 Disposal of Buyer Information must be done in a manner that assures complete disposal, and protects against unauthorized disclosure during the disposal process at the completion of the retention period.

3.7.1.13 Protection against viruses on any system that has access to files that could contain viruses including anti-virus scanning applications (i.e., scanning for known viruses every time system is booted) and anti-virus monitoring to detect any unusual application behavior.

3.7.1.14 It is the responsibility of Supplier to comply with copyright laws, to protect Buyer ownership in its copyrighted property, and to respect the copyrights of others.

3.7.1.15 Provide unique identification and authentication for each Supplier employee with access to Buyer Information. Passwords are selected and kept confidential by the Supplier's employee. Suspend user identification access to Buyer Information after some maximum of failed sign-on attempts (suggest six (6) failed attempts). Disable user identification(s) if not used after a period of time (suggest 60 days).

3.7.1.16 Require compensating practices, if access controls are inadequate to protect Buyer Information.

3.7.1.17 Segregation of duties must be maintained for the access of Buyer computing networks, systems, and applications.

3.7.1.18 Encrypt any GM Classified Information (GM Classified, GM Confidential, and GM Secret) transmitted over external networks.

3.7.2 Physical Security Requirements.

3.7.2.1 Physical access to areas containing proprietary documents and data processing resources must be controlled.

3.7.2.2 The area where data, equipment, and documents are located must be physically secure.

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3.7.2.3 Controls must be developed commensurate with the exposure of the data, the documents, and the equipment being used.

3.7.2.4 Computer equipment must be protected from environmental hazards. At a minimum, Supplier specifications must be adhered to.

3.7.3 Right to Audit. Buyer has the right to review, audit, or monitor, in accordance with the local law at any time with reasonable notice under normal circumstances. In those facilities supporting multiple company or government projects, this activity shall be limited to only the data identified related to Buyer.

3.7.3.1 All Buyer Information, data, and computing and communication resources utilized to support Buyer business.

3.7.3.2 All business process activities, information, data, and computing and communication resources of non-Buyer providers that support Buyer business.

3.8 Supplier Proposed Revisions to the SOR. Proposed revisions by Supplier to the SOR (including suggestions which may reduce cost and timing or increase customer value) should be identified clearly in Supplier's response to the RFQ. Should Buyer elect to adopt some or all of any such proposed revisions, the applicable SOR will be modified accordingly and authorized by the Buyer's Buyer and the Buyer's Lead Engineer in writing.

3.9 Requirements for Electrical and Electronic Products/Commodities. All Products/Commodities incorporating electrical, electronic or electromechanical subassemblies, such as: circuit boards, processors, Application Specific Integrated Circuits (ASIC), discrete electronic components, switches, relays etc., or devices with embedded software, shall adhere to the requirements specified in GMW15923 (Statement of Requirements for All Electrical and Electronic Systems and Components). In addition, all electrical and electronic systems or components shall be validated utilizing GMW3172 as the basis for the validation procedure.

4 Program Support

4.1 Program Management. Supplier management and administration tasks are described in the following paragraphs.

4.1.1 Program Plan. Supplier shall prepare a Program Plan that encompasses the Advanced Product Quality Planning (APQP) expectations and identifies program deliverables, requirements, and objectives and schedules, the completion of each on a timing chart which conforms to the program milestones, including and comprehending any regional timing differences on global programs. The first draft of the Program Plan shall be submitted during the sourcing phase for the Product/Commodity to be supplied. This plan, approved by the Buyer, shall be periodically reviewed and shall contain sufficient detail to enable Buyer to measure progress of the Program. This will be done in relation to the desired objectives; identify specific problem areas; assess the progress of the Program(s) in relation to the desired objectives; and determine a means for adjusting program efforts and resources to keep the Program(s) on track toward the objectives. Supplier shall publish periodic Program Plan updates showing the status of the Program activities.

The Program Plan shall be a summary of the specific individual plans required by the SOR and shall address all of the required Supplier plan deliverables, including the Resource Plan, Engineering Plan, Analysis/Development/Validation (ADV) Plan, Reliability Program Plan, Build Plan, Mass Reduction Plan, and Service Readiness Plan. Each of these plans shall be prepared by Supplier and submitted to Buyer for review and approval, per the summary of deliverables schedule.

Supplier shall execute and maintain all program management initiatives for the Program(s) (e.g., Gantt charts on tool timing). Additionally, Supplier shall be the Program Manager for all Tiered Suppliers. Additional information, including the following, shall be made available to Buyer as specified or upon request:

- a. Program expense summaries shall be submitted monthly to Buyer's Buyer (i.e., engineering spending curve).
 - b. Supplier Status on the following major program imperatives shall be provided to Buyer's Lead Engineer: For detailed requirements for major deliverables relative to program imperatives, due dates and buyer addressees, refer to SOR Appendix D – Program Deliverables.
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2. Piece Cost
3. Investment
4. Timing
5. Product Performance
6. Buildability
7. Recyclability
8. Design Status/Schedule
9. Engineering Cost

4.1.1.1 Engineering Plan. Supplier shall develop an Engineering Plan (a subset of the Program Plan), approved by the Buyer, consistent with each party's responsibilities, that describes how the requirements of the SOR will be achieved and that provides an overview of how the engineering tasks are going to be accomplished. The Plan shall answer the questions of who, what, when, where, and how each of the required tasks will be accomplished. The plan shall include Task Timing Schedule (chart) which identifies all tasks to be accomplished and shall show the start and completion time for each task with respect to the program(s) timing milestones.

The Engineering Plan shall also describe the design, materials, and manufacturing processes recommended or necessary to meet the requirements of the SOR. The Plan is to also define all open issues (such as unapproved materials requiring approval, interfacing part requirements necessary to execute the program, unspecified data, and tolerances) with an identified required completion date and responsible individual(s).

The Engineering Plan will serve as a record to Buyer and Supplier of the product development and execution phases of the Program(s) and the final Program(s) directions.

4.1.2 Program Schedule and Engineering Deliverables. Supplier shall become knowledgeable of and support Buyer Global Vehicle Development Process (GVDP). Supplier shall interface with the appropriate Buyer Vehicle Engineering Center (VEC) technical personnel (i.e., lead, validation, material, and process engineers) or Buyer Global Technology Engineering (GTE) technical personnel to accomplish this. Buyer's engineering group will bear the primary responsibility for leading the activity with Supplier throughout the Program(s). The global Advanced Vehicle Development Center (AVDC) and/or Buyer Global Technology Engineering (GTE) will assist the release of groups through early development on any issues, procedural or technical, concerning the application of the Buyer Global Vehicle Development Process.

4.1.2.1 Engineering Tasks. Supplier shall be responsible as identified in the Appendix A - RASIC chart for one or more of the following areas for the Product/Commodity to be supplied as detailed in the SOR: design, development, validation, manufacturing, continuous improvement and service life. To support this activity, Supplier shall follow the APQP process, including GM APQP specifics, and comply with the ISO/TS 16949.

4.1.2.2 Engineering Support. The following section reflects the expected level of commitment required of Supplier unless otherwise defined in Appendix B - General Program Description.

4.1.2.2.1 Supplier shall provide Designers, Engineers, a Program Manager, and other personnel (identified in the Resource Plan) to successfully execute program objectives. To receive and give direction, Supplier shall maintain a single-point technical liaison with Buyer. Supplier may be required to provide a limited level of on-site support at Buyer's location. The type of support (e.g., Designer, Engineer) and level of support (e.g., part-time, full-time) shall be reviewed and approved by Buyer as part of Resource Plan review. See Appendix B - General Program Description for specific requirements as to quantity, timing, and location of on-site supplier support.

4.1.2.2.2 Supplier shall participate in designated technical interchange meetings and program design reviews including being an active participant of the Product Development Team (PDT) and the PDT chairperson as appropriate.

4.1.2.2.3 Buyer and Supplier Engineering Support responsibilities per global region are found in Appendix A of the SOR and in the attached deviations to this document (see Deviation Section).

4.1.2.2.4 Suppliers will be responsible for all off-site computer and computer related expenses.

4.1.2.2.5 Supplier shall interface with, support, and assist Buyer in a number of specific and general areas concerning the Product/Commodity to be supplied, its design, and its application in the vehicle. This support will take many forms, including:

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