



Supplier Quality Standard

**Gartland Foundry
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Preface

The latest version of this controlled document is available on the Gartland Foundry Web site: www.gartlandfoundry.com, or internally from the electronic document control system.

Any revisions to this document **MUST** be posted on the web site. All previous revisions, especially those in printed copy format are obsolete and superseded. It is the supplier's responsibility to periodically check Gartland Foundry's web site to ensure they have the latest copy of this standard and understand any updates made available.

If a supplier takes exceptions to any expectations covered in this standard or to those expectations specifically referenced on the request for quotation or purchasing documents, it **MUST** be the supplier's responsibility to obtain written permission for deviation from Gartland Foundry.

THIS DOCUMENT IS CONSIDERED INCOMPLETE WITHOUT THE AIAG REFERENCE MANUALS, AND WITHOUT THE AIAG REFERENCE MATERIALS AS SPECIFIED BELOW. SUPPLIERS ARE RESPONSIBLE FOR OBTAINING REFERENCE MATERIALS.

Automotive Industry Action Group (AIAG) publications (current revisions):

Advanced Product Quality Planning and Control Plan (APQP)
Statistical Process Control (SPC)
Potential Failure Mode and Effects Analysis (PFMEA)
Production Part Approval Process (PPAP)
Measurement System Analysis (MSA)

Mandatory requirements are preceded by the words "**MUST**" or "**MUST**". A preferred approach is indicated by the word "**SHOULD**".

This standard applies to all current and potential suppliers of Raw Material, Purchased components and Outside Processors (Coating, Deburring, Heat Treat, Core Making, etc.) to Gartland Foundry.

Suppliers who provide Coating, Heat Treat, or other similar service are required to provide the applicable CQI surveys annually, or as dictated by AIAG/OEM customer specific requirements.

All steel suppliers must also submit a "Conflict Minerals Declaration" in accordance with federal law. Even if suppliers and subcontractors do not manufacture any products that contain "conflict minerals," or do not intentionally add conflict minerals as necessary to the functionality of the product, negative survey responses stating as much are still required. "Conflict minerals" refers to gold, tin, tantalum, tungsten, the derivatives of cassiterite, columbite-tantalite, and wolframite, regardless of where they are sourced, processed, or sold. The intent of this requirement is to further the humanitarian goal of ending violent conflict in the Democratic Republic of the Congo (DRC) and in surrounding countries, which has been partially financed by the exploitation and trade of these minerals. While it is likely that the process used to manufacture the products supplied does not intentionally add or utilize "conflict minerals," it is possible that subcontractors and suppliers of raw materials do. To ensure compliance with this requirement, each supplier must request information regarding the use of conflict minerals from their direct suppliers who in turn must solicit that information from the next tier of suppliers. Gartland Foundry will provide the template for conflict minerals reporting.

Abbreviations and Acronyms use in this document:

SDS - Safety Data Sheet
RMA - Return Material Authorization
SPC - Statistical Process Control
STA - Supplier Technical Assistant
STE - Supplier Technical Engineer

Introduction

The goal of this Quality System Requirement is the development of fundamental quality systems that provide for continuous improvement, emphasizing defect prevention and the reduction of variation and waste in the supply chain. Supplier/Vendor development using ISO 9001-2015 and/or IATF16949-2016 is a requirement of the quality system.

This Supplier Quality Standard communicates Gartland Foundry's requirements and expectations to their suppliers. The requirements described in this standard apply to suppliers of Raw Material, Purchased Components and Outside Processes (Coating, Heat Treat, Core Making, etc.).

It is necessary to assure the long-term success of our mutual business interests, therefore, we at Gartland, along with our suppliers must work together to dedicate ourselves to continuous improvement of our products and processes. The results of these efforts should provide all involved with a competitive advantage through improved customer satisfaction.

Gartland Foundry is committed to sharing technology and ideas to ensure a mutually profitable relationship based upon:

- continuous improvement,
- quality assurance and planning,
- consistent focus on customer satisfaction,
- and by dealing in a spirit of cooperation & partnering with our suppliers.

Quality System Requirements

Gartland Foundry -Specific Requirements

1.1 Supplier Assessment

- 1.1.1 All suppliers **MUST** have a full assessment and meet the required ISO 9001-2015 and/or IATF16949-2016 elements per AIAG requirements.
- 1.1.2 Using one or more of the alternatives listed below, the supplier **MUST** determine the method for verification/assessment of conformance to the ISO 9001-2015 and/or IATF16949-2016 standard. The alternatives are:
- Internal self-assessment with the ISO 9001-2015 and/or IATF16949-2016.
 - Second party assessment by Gartland Foundry or a Gartland Foundry's approved second party.
 - Third party assessment and registration.
- 1.1.3 The frequency of assessments to the requirements previously established is at least annually, or as needed. However, if the supplier pursues a third party registration, the frequency of assessment is determined by the supplier's internal audit plan, external surveillance audits, and/or re-certification audits. Failure to satisfy these requirements can result in the potential loss of new business.
- 1.1.4 Internal Self-Assessment – Upon request, and in lieu of a second or third party assessment, a supplier is required to complete a self-audit - the audit (assessment) form is supplied by the Gartland Foundry's Purchasing Department. The self-audit **MUST** be completed in full and returned within the time allowed. Suppliers not completing the requested self-survey **SHOULD** be rated accordingly on their Quality rating.
- 1.1.5 Second Party Assessment – The ISO 9001-2015 and/or IATF16949-2016 quality system assessment audit is used to evaluate new and current suppliers. Quality levels and continuous improvements **MUST** determine the frequency of assessments. Second party audits are considered a form of supplier development.
- 1.1.6 Third Party Assessment and Registration – A copy of the registration certificate **MUST** be sent to the Gartland Foundry's Quality Department.
- 1.1.7 If not 3rd party certified, Gartland **MUST** request a self-audit (assessment summary) annually. The summary **MUST** be used to track the supplier's progress toward or achievement of ISO 9001-2015 and/or IATF16949-2016-guideline implementation.
- 1.1.8 Assessments do not preclude product/process audits as part of the APQP or problem follow-up process.

1.2 Supplier Qualification

- 1.2.1 Any new suppliers being considered as a provider of raw material, purchased components, or outside processes to Gartland Foundry **MUST** meet the minimum requirements set forth by the Purchasing and Quality Departments.
- 1.2.2. The Purchasing Department (with assistance from Quality, and other departments as needed) selects, schedules, and performs potential supplier on-site reviews.
- 1.2.2.1 Suppliers **MUST** be able to demonstrate financial stability, provide industry references, and agree to all Gartland Foundry' terms and conditions.
- 1.2.2.2 Suppliers **MUST** be able to demonstrate capabilities to manufacture products within Gartland Foundry's purchased commodity structure while maintaining sufficient resources (capital, equipment, personnel, etc.) available to devote to potential Gartland Foundry business.
- 1.2.3 Supplier Quality System Assessment (ISO 9001-2015 and/or IATF16949-2016): The Purchasing Department with assistance from other departments **MUST** perform a review of a potential supplier's quality system and industry ratings for quality performance.
- 1.2.4 New Suppliers **MUST** be considered "Probationary Suppliers" until requirements as stated above are met and the supplier achieves six (6) months of acceptable quality and delivery Performance.

1.3 Request for Quotation

- 1.3.2 Supplier request for quotations (RFQ's) format will be determined by the purchasing, or departmental agent working with the supplier. If Gartland Foundry does not specify a particular format, the supplier may use their form.
- 1.3.3 The supplier **MUST** provide a quotation per the part drawing submitted. **Any exceptions to the part drawing MUST be noted on the quotation.** Suppliers are encouraged to provide suggestions with regard to part design that would aid in the manufacturability of the part and thereby reduce costs but **MUST** also provide a price based on the part as designed with no changes.
- 1.3.4 If requested by Gartland Foundry, the supplier **SHOULD** include in the quotation price the cost for two (2) dedicated part inspection gauges. One of these gauges **MUST** be used at the supplier location; the second gauge **MUST** be utilized at the manufacturing site (machine shop). Failure to include gauging cost in the quotation **MUST** necessitate the supplier providing the gauge at the supplier's cost.
- 1.3.5 The supplier **MUST** consider, and include in the quotation, the cost of special packaging or handling for a part. The supplier **SHOULD** contact Engineering and/or Purchasing with any questions as to packaging requirements for a specific part. The supplier **MUST** specify and describe the type of packaging or special handling included in the quotation and the cost associated.

- 1.3.6 Failure to complete and return the Quotation on time or provide all requested information could affect the Supplier's Quality rating and may preclude the supplier from obtaining additional new business from Gartland Foundry.
- 1.3.7 During the quotation phase of any project, the supplier is expected to hold the same price quoted on the initial quotation. Any price increase **MUST** be justified and supported with documentation and may eliminate the supplier from obtaining the business.

1.4 Prototype Programs

- 1.4.1 Suppliers to Gartland Foundry may be asked to participate in a prototype development program.
- 1.4.2 Suppliers are expected to participate in these programs and to cooperate with Gartland Foundry' Engineering and / or Project Management to ensure the final part design can be manufactured in the defined production process.
- 1.4.3 Specific prototype program requirements SHOULD be addressed on an individual basis at program award.
- 1.4.4 A supplier's refusal to participate in a prototype development program may preclude the supplier from obtaining the production business.

1.5 Advanced Product Quality Planning

- 1.5.1 The advanced quality planning of new products and processes **MUST** be approached in an organized manner per the AIAG **Advanced Production Quality Planning and Control Plan (APQP) manual**. The supplier **MUST** use the guidelines in this manual for the development of product and process control plans. All PPAP submissions **MUST** contain control plans based on the AIAG format. PPAP's are to meet and be in accordance with the AIAG PPAP manual.
- 1.5.2 Gartland Foundry requires up-front, pre-production quality planning and may require attendance at pre-production meetings that SHOULD address both product and process concerns. It is mandatory that suppliers participate with Gartland Foundry in these quality-planning activities. Suppliers SHOULD include members from both production and quality in these planning meetings.

1.6 Supplier Tooling Requirements

- 1.6.1 Suppliers are required to prepare a tooling report for all tooling projects (initial and revised tooling) until full PPAP approval is given. Failure to comply with this requirement **MUST** affect a supplier's performance rating.

- 1.6.2 A supplier **MUST** provide shipping notification / information to the appropriate Engineer. Failure to comply with this requirement **MUST** affect a supplier's performance rating.
- 1.6.3 A supplier **MUST** meet the PPAP date as shown on the Purchase Order. If a supplier fails to meet the date required, the supplier may be held responsible for any expedited shipment charges for the entire program. The charges **MUST** be assessed by the Engineering and/or Purchasing along with the Launch Team based on program timing requirements and **MUST** be charged to the supplier via a cost recovery. PPAP dates are to be met and the PPAP documentation **MUST** be completed in accordance with the AIAG PPAP manual requirements.
- 1.6.4 Suppliers **MUST** not ship any parts, except the PPAP package samples, to Gartland Foundry, without prior PPAP approval or written authorization from Gartland Foundry' Purchasing and/or Quality Department. All parts must meet dimensional and functional requirements per the part drawing and purchase order agreement.
- 1.6.5 Any release for production quantities received from Gartland Foundry prior to PPAP approval is to be considered Raw Material Authorization ONLY. PPAP approval is required prior to any part production.
- 1.6.6 Tooling invoices are paid per negotiated terms. Otherwise, they are paid after PPAP approval.
- 1.6.7 Except for tooling that has a specific part life, a supplier is required to maintain all tooling for the life of the program. All repairs and maintenance are the responsibility of the supplier. Failure to maintain tooling in a proper manner may result in the supplier being charged for any required tooling repairs or replacement.
- 1.6.8 Tooling manufacturers **MUST** adhere to the Gartland Foundry' Tool and Die Specifications.
- 1.6.9 **Copies of all required forms and manuals can be obtained from the Gartland Foundry' Quality and/or Purchasing Department. The documents may also be located on the Gartland Foundry web site.**

1.7 Material Certification with Shipments

- 1.7.1 All suppliers to Gartland Foundry are to include copies of the material certification and SPC (statistical process control) information on designated key characteristics with each shipment. Material Certifications and SPC information for lots shipped indirectly to Gartland Foundry **MUST** be included with the shipment to the indirect supplier.
- 1.7.2 Material received without certification **is** subject to rejection and potential cost recovery charge-backs – see section 1.11 Cost Recovery from Suppliers.
- 1.7.3 SDS sheets **MUST** be received with the PPAP package and as requested. Product received without the corresponding SDS sheets available **MUST** not be accepted for use until the SDS is received.

1.8 Supplier Performance Rating

- 1.8.1 It is the responsibility of the individual supplier to monitor their performance and identify continual improvement opportunities per ISO 9001-2015 standard.
- 1.8.2 To assist suppliers in tracking their performance, Gartland Foundry will provide a quarterly Supplier Performance Report (Quality and Delivery as defined in paragraphs 1.8.3 and 1.8.4).
- 1.8.3 **Quality Requirements**
- 1.8.3.1 **Parts Per Million (PPM)**
- Quality PPM defective reporting is based on the **total shipment quantity rejected** unless the product is sorted at the supplier's expense. For clarification, if a shipment contains one defective part and the shipment is not sorted, Gartland Foundry assumes that all parts in that shipment are defective. If the shipment is sorted, the Quality Manager may elect to only charge discrepant parts sorted.
- 1.8.3.2 The following equation **MUST** be used to calculate supplier PPM's on a monthly and year-to-date basis.
- $$\text{PPM} = \frac{\text{Total number of defective parts} \times 1,000,000}{\text{Total number of parts received}}$$
- 1.8.3.3 Corrective and/or preventive actions are requested, as required. The eight D or 5Y processes are our preferred method of corrective action.
- 1.8.4 **Delivery Requirements**
- 1.8.4.1 Delivery Performance is calculated based on **shipments received as scheduled** versus **total orders scheduled to be received**. Scheduled delivery criteria **MUST** be rated as received.
- 1.8.4.2 **The Supplier Objective MUST be 100% on-time delivery.**
- 1.8.4.3 Each order received **SHOULD** be reviewed for the following:
1. **Short Shipments** – any quantity of material received that is less than the quantity ordered for that shipment.
 2. **Over Shipments** – any quantity of material received that is greater than the quantity ordered for that shipment.
 3. **Late Arrivals** – any order not arriving within the time parameter as specified (either early or late).
 4. **Special Shipments** – any order needing to be special shipped due to vendor error.
 5. **Missing Quality Documentation** – documentation necessary to release product to production as follows, for example: material certifications, SPC data for significant or critical characteristics missing, SDS sheets, material move tickets, travel tickets, etc. If applicable documentation is not received, the product cannot be used for production, and **MUST** be rejected, until such information is obtained from the Supplier.

- 1.8.4.4 Any of the above discrepancies charged against an order **MUST** result in the entire shipment being determined as a defective shipment for rating purposes.
- 1.8.4.5 Gartland Foundry **SHOULD** provide a copy of the Delivery Performance Rating on a quarterly basis. This **SHOULD** allow you as the supplier, to know what the ratings are and initiate Corrective and/or preventive action when the Delivery Performance falls below 95%.
- 1.8.4.6 As part of our development requirements for suppliers, 100% On-time delivery is a goal for each supplier. As part of this development, suppliers with delivery ratings continually below the goal of 100% are asked to provide corrective and/or preventive actions for poor delivery performance.
- 1.8.4.7 The Supplier has the right to submit in writing to the Gartland Foundry Purchasing Department, any objections it has to any items in the Performance letter.

1.9 Supplier Development

- 1.9.1 Supplier Development refers to all activities designed to improve the fundamental quality system performance of the supplier. The level of development is dependent upon the needs of the supplier relative to the requirements of ISO 9001-2015 and/or IATF16949-2016 and the importance of the product or process they supply.
- 1.9.2 Encouraging development of and deployment of quality and manufacturing systems meeting ISO 9001-2015 and/or IATF16949-2016 through surveys, corrective and/or preventive actions, documentation requirements or workshops are all potential forms of supplier development.
- 1.9.3 ISO 9001-2015 and/or IATF16949-2016 contain fundamental quality system requirements, which would be of value to any size provider of raw material, component parts and outside processing.
- 1.9.4 As part of Supplier Development, it is expected that a documented continual improvement process is in place. Improvement activities should include, increase efficiency, the reduction of waste, and overall customer satisfaction.

1.10 Supplier Program

- 1.10.1 Requirements for attainment of "approved supplier" status are:

ISO 9001-2015 and/or IATF16949-2016 Quality System – Third party assessment and registration to the QS or ISO standard or approval from the customer STA.

Quality Performance – For any product supplied to Gartland Foundry, at least six (6) months of acceptable performance as determined by Gartland Foundry.

Delivery Performance – 100% on-time delivery performance.

- 1.10.2 Suppliers **SHOULD** be evaluated for qualification for “Approved Supplier” status on an regulated basis which is determined by Gartland Foundry. Certification **MUST** be considered at the discretion of, and approved by, the Gartland Foundry' Purchasing and/or Quality Department.
- 1.10.3 Suppliers who obtain “approved supplier” status **SHOULD** be notified of this achievement.
- 1.10.4 **DECERTIFICATION PROCESS:**
Suppliers **MUST** be decertified at the discretion of the Gartland Foundry Purchasing and/or Quality Department for any of the following conditions:
- Failure to provide an annual update of ISO 9001-2015 and/or IATF16949-2016 registration or progress toward registration or receive approval from customer STA.
 - Unsatisfactory Quality Performance history.
 - Unsatisfactory Delivery Performance history.
 - Poor Service (delivery, invoicing, quotations, PPAP dates, etc.).
 - Failure to provide annual layout and functional verification when requested.
 - Failed Run @ Rate and unsatisfactory completion of required corrective and/or preventive actions.
 - Failure to provide corrective and/or preventive actions for quality non-conformances.

1.11 Cost Recovery from Suppliers

- 1.11.1 Gartland Foundry is to be protected from additional or excess costs when the costs are directly attributable to a supplier's quality or delivery problems.
- 1.11.2 The supplier may be immediately notified of a quality concern via a phone call (voice mail is acceptable) and **SHOULD** be formally notified in writing (email is acceptable) of a quality concern or a behind schedule condition.
- 1.11.3 Gartland Foundry **SHOULD** maintain detailed records of all costs associated with the Corrective and/or preventive actions and/or downtime. Examples are:
- 1.11.3.1 Administrative Fees:
- An administrative fee of \$150 can be charged for **every** corrective and/or preventive action request, late PPAP submission, rejected PPAP submission or cost recovery.

1.11.3.2 Freight:

- A supplier **MUST** be responsible for all freight to and from Gartland Foundry and to the Gartland Foundry' Customer when the premium freight charges are directly attributable to the supplier's quality and / or delivery problems.
- A supplier **MUST** be responsible for all freight bills to Gartland Foundry and back to the supplier when defective product is returned to a supplier.

1.11.3.3 Downtime or Overtime:

- A supplier **MUST** be debited for any downtime or overtime incurred at Gartland Foundry or a Gartland Foundry' Customer that is caused by a supplier's quality and / or delivery problems.

1.11.3.4 Sorting Charges:

- A supplier **MUST** be charged all associated cost incurred when:
 - A sort by Gartland Foundry employees is necessitated (Sort charges are \$50 per man hour).
 - A third party is utilized to sort/validate suspect and/or nonconforming product.
 - Charges are incurred if the Gartland Foundry's Customer has to perform a sort/validation of the supplied product.

1.11.3.5 Rejected Parts:

- A supplier **MUST** be debited the purchase order value for all rejected parts that are either returned or scrapped. A supplier **SHOULD** provide a return material authorization (RMA) number to the Gartland Foundry Purchasing Department when authorizing part returns.
- A supplier **MUST** be liable for all secondary-processing costs for any rejected product.
- A supplier **MUST** be debited for the full sales price of any molded parts or assemblies manufactured utilizing a supplier's defective product.
- The supplier **MUST** have ten (10) days from notification to request samples of the parts to be returned for review. The supplier **SHOULD** contact the Gartland Foundry Purchasing Department to request samples to review. After ten (10) days the samples can be disposed of.

1.11.3.6 Missing / Incorrect Paperwork

- A Supplier may incur an expense for missing certification paperwork and/or Gartland Foundry' tags (material move tickets, travel tickets, inspected tags, etc.).
- If paperwork is missing or incorrect, the product **MUST** be rejected until the Supplier can forward the information to Gartland Foundry.
- For outside processes - coating, heat treat, etc. - if the Gartland Foundry date code number is not on the material certification, the supplier may incur an expense and the material **MAY** be rejected until the Material Certification is corrected.

1.11.4 The supplier **MUST** receive notification of the pending cost recovery from Gartland Foundry Purchasing. If the supplier wants to challenge the information shown, supplier **MUST** contact Gartland Foundry' Purchasing Department within two (2) business days of receipt; otherwise the debit **MUST** be processed as shown.

1.12 Invoicing Requirements

- 1.12.1 Purchase order number, ship to location, freight carrier **MUST** be on the packing slips and invoices.
- 1.12.2 Suppliers **Will** only be paid per the approved Purchase Order price.
- 1.12.3 Invoices **MUST** reference the packing slip or shipper number.
- 1.12.4 Invoices **MUST** be received within seven (7) days of shipment for timely payment.
- 1.12.5 Invoices for tooling payment **MUST** include a copy of the approved warrant for timely processing of payment.

1.13 Blanket Purchase Orders

- 1.13.1 All requested pricing changes **MUST** be submitted to Purchasing for review and **MUST** be justified.



Acknowledgment Sheet

Please retain this sheet and return a signed copy to the appropriate contact, indicating that you have received, reviewed, and accepted in principle the Supplier Quality Standard contents.

Supplier Name: _____
Address: _____
Telephone Number: _____
Email Address: _____

Authorized Signature: _____
Name and Title: _____
Date Signed: _____

Supplier Contacts

Please update contacts below

<u>Position</u>	<u>Name</u>	<u>Phone</u>	<u>Email Address</u>
Plant Manager			
Quality Manager			
Sales			
Purchasing			
Engineering Manager			