AUTOMOTIVE AXLES LIMITED

Supplier Quality System Requirements

SQSR

AAL QUALITY POLICY

To be a world class organization whereby we are committed to:

- Exceed business plan objectives, Customer expectation & Shareholders expectation Through:
  - Total Human resource involvement
  - Providing customers with the highest level of safety in all our products
  - Providing exceptional services
  - Innovation and Continual improvement

AAL QUALITY OBJECTIVES

1. Achieve Customer Satisfaction through supply of the state of art products/ services to meet and exceed Customer expectations for Technology, Quality Cost, Delivery and Responsiveness.

2. Committed and focused on world-class Quality and Warranty performance in all aspects of our operations from engineering to manufacturing.

3. Continually lead in the. **New Product Development** with innovative solutions, focused on Product Safety throughout, product design, manufacturing & supply chain.

4. Continually improve **Human Resource Systems** and practices through Training, Empowerment and Motivation to achieve Total Employee Involvement, Teamwork and Respect for each other.

5. Establish Bench Marking Practices to outperform competitor's strategies and enhancing customer loyalty with differentiated products, superior service and competitive pricing.

6. Exceed our **financial and growth** objectives through aggressive implementation of our Business Plan.

7. Continually improve **Environment, Health, Safety** & community development and related practices.

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1.0 Introduction

1.1 Scope

The details stipulated within this manual are the minimum mandatory requirements for "approved" production (including aftermarket) goods and service suppliers to Automotive Axles Ltd., its subsidiaries and affiliates irrespective of their global location.
AAL is committed to providing on time, quality products and services that meet our customer's needs and requires a commitment from our suppliers to provide the same to us. Creating win/win relationships strengthened by success remains a cornerstone in meeting changing customer expectations.

1.2 Purpose

The purpose of this document is to communicate AAL's requirements with respect to the Quality Management System of those companies that supply production goods and/or services to AAL.
AAL requires that its suppliers:

a) Implement appropriate systems and controls to ensure the 100% on-time delivery of conforming, defect free products to AAL.

b) Manage facilities, processes, quality systems and personnel to consistently and cost effectively produce products and furnish services that meet the needs of AAL and its customers.

c) Develop and implement a documented Quality System, including an Advanced Product Quality Planning process, in accordance with the requirements of ISO 9001:2015 /IATF 16949:2016 and the AIAG Advanced Product Quality Planning and Control Plan reference manuals in order to assure that all AAL requirements are met.

d) Provide objective evidence that all supplied products and services satisfy AIAG Production Part Approval Process requirements including acceptable process capabilities for Special/Control Characteristics.

e) Utilize appropriate statistical techniques for on-going process control and improvement (as established in the AIAG Fundamental Statistical Process Control reference manual).

f) Continuously improve by reducing part-to-part variation and eliminating all waste.

g) Conduct its operations to and assure that all materials and products provided to AAL meet or exceed all applicable environmental laws and regulations of the jurisdictions in which the supplier does business. Suppliers must meet the same requirements that our customers demand of us. Also, suppliers are strongly encouraged to install environmental systems in their facilities that are compliant to ISO 14001.

h) Comply with all applicable government statute, regulations and standards relating to motor vehicle safety or emissions within the territories of use

i) Meet the requirements of AAL with regard to the use, control and supply of returnable packaging. Suppliers are responsible for requesting any specific packaging documentation directly from business unit(s), as required.

j) Are capable of receiving and sending EDI transactions (e.g., receiving Releases, sending Advanced Shipping Notices).

1.3 Background

The AAL Supplier Quality System Requirements (SQSR) is based upon the latest edition of Automotive Quality Management System Standards. These requirements are an integral and legally binding aspect of the AAL Purchase Order. Although this does not alter or reduce any other requirements of the contract, it is intended to provide a concise understanding of our quality expectations.

This manual supersedes all previous AAL's Supplier Quality Systems requirements manuals.
The controlled copy of the AAL Supplier Quality System Requirements manual is posted on the AAL supplier web site at: http://www.autoaxle.com

2.0 Quality Systems Requirements

2.1 General Quality Systems Requirements:

Present and potential suppliers to AAL. Must operate within a comprehensive quality system. Suppliers shall provide written confirmation and objective evidence of third party certification to an active version of ISO 9001:2015 /IATF 16949:2016. Certification to ISO 9001 will be accepted as a first step in achieving this goal. Certified suppliers must submit their initial and renewal quality system certifications to AAL Procurement within 10 days of receiving the certificate from their registrar. Also, suppliers are required to immediately notify all AAL receiving sites and their buyer if their registrar places them on "Probation".

Suppliers who are not ISO 9001:2015 /IATF 16949:2016 certified must have a working plan to become compliant to ISO 9001:2015 /IATF 16949:2016available for AAL review.

Suppliers are required to follow the requirements of the current version of the Production Part Approval Process (PPAP) manual and meet the intent of the requirements specified in the following AIAG Reference Manuals: Advanced Product Quality Planning and Control Plan (APQP), Potential Failure Mode and Effects Analysis (FMEA), Measurement Systems Analysis (MSA), and Statistical Process Control (SPC). Additional requirements are noted in this Supplier Quality System Requirements manual. AAL may communicate other requirements as our needs or the needs of our customers change. It is the responsibility of AAL's suppliers, both present and new, to obtain and maintain the current issue of all ISO 9001:2015 /IATF 16949:2016 and AIAG related documents (see 3.2 Supporting Industry Documents for ordering information).

Comments or questions regarding the AAL Supplier Quality System Requirements manual may be directed to the appropriate AAL plant Supplier Quality Engineer.

2.2 Advanced Product Quality Planning (APQP):

Suppliers are required to generate an Advanced Product Quality Plan in accordance with the AIAG APQP reference manual for review by the AAL (Concept to Customer) Project Team or relevant Engineering group. This plan shall include, but is not limited to:

a) Notification of risks that affect product integrity or the project plan.
b) Implementation of error-proofing (poke-yoke) to achieve Zero Defects to AAL.
c) Identification of changes needed to product or process specifications.
Suppliers designated as "critical" by AAL will be required to utilize and submit the APQP Critical Supplier Status Report. This report is intended to track the supplier's progress throughout the APQP and launch processes

2.3 Technical Review & Pre-Award Meeting

A Pre-Award Meeting for present and potential suppliers offering new products or services shall be required prior to Purchase Order issuance (unless formally deviated by AAL based upon historical evidence of successful adherence to AALs requirements). Technical, quality, manufacturing, engineering, purchasing, delivery, and business issues shall be reviewed during this meeting to provide the supplier with a thorough understanding of AAL requirements. Under most circumstances, Procurement shall schedule the meeting and include cross-functional membership as appropriate. Suppliers shall meet all requirements agreed to at the Pre-Award Meeting as a condition of business award. Agreements shall be documented in the Pre-Award Meeting minutes and formally concurred with signature on the Supplier Pre-Award Meeting Checklist (see the link under 3.1 AAL Supporting Documents for a copy of the checklist).

Design responsible suppliers are required to comply with AAL's Engineering drafting standards, which can be obtained from the applicable Engineering group.

2.4 New Product Development (NPD) - Prototype Sample Submissions

Engineering prototype parts with documentation of specification conformance shall be submitted to AAL by the supplier as instructed by the AAL - C 2 C Project Team for engineering validation testing. Each sample or prototype must be clearly labelled as such and accompanied by completed Dimensional Results, Material Test Results, and Performance Test Results reports as described in the AIAG PPAP manual. Specific instructions, in addition to these stated requirements, may be agreed upon and documented by AAL via the Pre-Award Meeting or other formal communication. Ex. Balloon Drg, ISIR, ISLR, Steel mill TC, Cut Sample, Radiography report, Sample Qty etc.

2.5 Special Characteristics

Special Characteristics are any product or process characteristics that affect safety or compliance with regulations, fit, function, performance or subsequent processing of product.

In accordance with the requirements of ISO 9001:2015 /IATF 16949:2016 , Special Characteristics shall be identified and specifically addressed in the DFMEA, PFMEA, Control Plans, Process Flows, Work Instructions and other associated documents. AAL+ designated Special Characteristics are identified on drawings/specifications or in a separate document (e.g., QCC Log) that cross-references these characteristics to the drawings/specifications. Suppliers are responsible to fully understand the usage of their product and also identify Special Characteristics, as appropriate. This includes "Proprietary Parts" suppliers. Suppliers are also responsible for ensuring that relevant Special Characteristics are explained, understood and controlled by their sub-suppliers.

2.6 Process Capability and Control

Suppliers are required to meet the process capability requirements as defined in the AIAG PPAP and SPC reference manuals, unless otherwise specified by AAL. The supplier is responsible to ensure process capability and control requirements are documented in their control plan and that capability indices are achieved and improved throughout production

SPECIAL CHARACTERISTICS MANAGEMENT FOR DIMENSIONAL & ASSEMBLY OPERATIONS

For special characteristics, the following requirement applies:

		Safety Critical Characteristics	Major Characteristics
Dimensional Features:	Process under control, normally distributed	**Cpk≥1.67** **AND** Production followed up with SPC (Statistical Process Control)	**Cpk≥1.33** **AND** Characteristic checked regularly (frequency in accordance to capabilities studies)
	Preferred Alternative	Poke Yoke (Effectiveness verified once per shift)	Poke Yoke (Effectiveness verified once per shift)
	Accepted Alternative	1.Process 100% automatic check 2.100% control / inspection 3.Full traceability	1.Process 100% automatic check 2.100% control / inspection 3.Full traceability
	Non normally distributed population (e.g. Surface Finish)	1 AAL shall determine with the supplier representative alternative acceptance criteria for processes with one-sided specifications or non-normal distributions. 2.Refer to AIAG SPC Manual for Additional information and Guidelines	
Material /Heat Treat/Process Characteristics:	For all safety and major characteristics related to Material, Heat Treat, or Process Parameters. Normally distributed populations and non-normally distributed populations.	AAL approved control plan 1.AAL approved Raw Material Sources (e.g. Steel Mills) 2.Enhanced traceability of raw material lot and process controls required. 3. Design of Experiment (DOE) recommended for the establishment of process parameter control limits and assignable causes of variation.	

2.7 Sub-Supplier Control

Each AAL supplier is responsible for the control and continuous improvement efforts of its suppliers. However, AAL reserves the right to visit sub-suppliers.

AAL suppliers shall require their suppliers of production of Products and services to conform to the requirements specified herein and must implement and document appropriate controls.

2.8 Supplier Tooling, Gauging and Returnable Containers

Supplier tooling (dies, patterns, moulds, special tooling) and gauging shall be permanently marked with a unique serial number and company name so that the ownership aof each item can be easily identified. Returnable containers shall be permanently marked with the company name of ownership. For AAL or OEM owned tooling, an AAL or OEM asset tag may also be required.

The supplier shall establish preventive/predictive maintenance procedures on all tooling. Evidence of procedure execution shall be made available upon request. Preventive/predictive maintenance schedules and tool history records shall be documented and available for review.

No supplier tooling shall be sold or consigned to another entity without proper notification and written consent from AAL. In such cases, or in case of tooling relocation to an alternate supplier location or facility, it is the supplier's responsibility to contact AAL regarding potential re-PPAP requirements prior to moving the tool.

2.9 Initial Sample and Pilot Lot Requirements

Suppliers are required to meet AAL Sample / Pilot lot requirements. These requirements will be documented by AAL via the Pre-Award Meeting or other formal communication.
Required documentation (e.g., Control Plans) must be kept current.

Suppliers are expected to clearly identify "early production" or "pilot parts" to ensure that the AAL receiving site does not mix such parts with "regular" production parts. Suppliers are also expected to work closely with AAL plant Scheduling and Material Control personnel to minimize unnecessary obsolescence.

Labelling must be done per AAL receiving site requirements and shall be differentiated from regular production shipping labels, unless the parts are already PPAP approved. In particular, the Supplier Identification, Part Number, Engineering Level, and Quantity must be clearly displayed on the part-packaging label to ensure easy, visible segregation of containers/parts.

In addition, a brightly coloured sheet of paper, at least 8 inches by 11 inches in size (A5 or greater), must be attached to at least 2 sides of the container or material, stating one of the following:

- Pre-Production Materials
- Pre-Production Parts
- Pilot Materials
- Pilot Parts

Suppliers not adhering to the above requirements may be placed on Containment, which is discussed in Section 2.24.

2.10 Manufacturing Process Review

A systematic review of a supplier's manufacturing process may be conducted at the supplier's facility prior to AIAG PPAP submission. This process may be an AAL or AAL customer specified process (e.g., PSO, PAPA, and Run at Rate).

2.11 Production Part Approval Process (PPAP)

All production part sample submissions shall be in accordance with the AIAG PPAP manual requirements as stipulated by the AAL C2C Project Team or receiving site Quality department. Level 3 PPAP, supplied electronically, is the default submission level unless otherwise agreed upon with the relevant receiving site Quality department. Supplier PPAP packages shall include all component (internal and sub-supplier) PSWs at a minimum and may require additional PPAP documentation as per the receiving site Quality department. Supplier must verify and retain all sub-supplier PPAP approvals and have available upon AAL request.

PPAPs shall be submitted to each AAL receiving site Quality department and any associated PPAP sample parts shall be clearly labelled as such.

Full or interim approved PPAP is required prior to shipping parts to AAL for production. Any production shipments received by AAL prior to obtaining this approval will be rejected. Any exceptions must be documented and approved on an AAL deviation.

2.12 Changes to Approved Product and Processes

Suppliers and sub-suppliers are not to make any unauthorized changes to a product (e.g., material, component, subassembly, etc.) or the process used to produce a product that has been previously PPAP approved by AAL. This includes changes to Process Control Plans.

AAL notification and submission requirements are clearly outlined; this can be seen in the AIAG PPAP Manual In online...

The appropriate AAL Procurement and receiving site Quality representative shall be notified of intentions to change a product or process prior to making any changes. The supplier must submit a Supplier Request for Product or Process Change (see 3.1 AAL Supporting Documents for a link to the form) and receive written authorization to proceed with the change from the AAL's receiving site Quality department prior to change implementation.

Any such change made without prior written approval by AAL would not only constitute a breach of our purchase order terms and conditions, but would also be a serious breach of standard automotive practice. Suppliers who do not adhere to this requirement will be held responsible for all damages, losses and liabilities attributable to any unapproved change made by you or one of its suppliers (e.g., customer rejections, customer line stoppage penalty fees, field failures costs, warranty expense). In addition the supplier may be placed on New Business Hold until the systemic issue is addressed.

2.13 Annual Re-qualification

Supplier must have on file for AAL review, annual verification of conformance for all parts that are safety Related characteristics (SRC) Components.
Should annual test validation be required, the supplier will be informed of this requirement at Technical review or in writing by AAL .If Annual test validation is required, documentation shall be on file at the supplier and available to AAL upon request.
If a non-conformance is found during the annual validation, the supplier must notify the AAL plant quality department immediately so that appropriate action can be determined and implemented.
Whenever AAL is required to submit PPAP to their customer, suppliers with PPAP documentation over one year old may be required to re-PPAP as directed by the AAL receiving site Quality department.

2.14 Certificates of Conformance

A signed certificate of conformance will be maintained on file at the supplier and may be required to accompany each shipment of specified components or materials. The certificate of conformance must contain the actual results of physical testing, measurements and/or analysis specified by the contract confirming compliance with all identified requirements. The AAL receiving site and/or GP3 Project Team will give specific instructions during the Pre-Award Meeting or other formal communications.

The supplier should have a system capable of retrieving and submitting the requested Certificate of Conformance within 24 hours of AAL's request.

2.15 IMDS Requirements

IMDS (International Material Data System) allows the OEM's and suppliers to collect and to manage the Information regarding the material and substance composition of all the components of a vehicle so that Compliance to the ELV-Directive is documented. AAL suppliers are required to report the contents of the products they supply to Meritor in the IMDS under IMDS No. 143663.

IMDS is a requirement of PPAP for all AAL, Inc. suppliers. To assure PPAP approval, IMDS Submissions must be submitted at a minimum of 15 days prior to the PPAP due date. This allows adequate time for all submissions to be thoroughly reviewed, resubmitted if Necessary and Accepted. Refer to the following links for more information:

- **IMDS:** http://www.mdsystem.com (**AAL - IMDS ID**: **143663)**
- **Global Automotive Declarable Substance List (GADSL):** www.gadsl.org

Liability rests with the supplier in the event that components being supplied to AAL do not Conform to the relevant statutory requirements. Any and all costs incurred in such instances will be borne to their full extent by the supplier, not by AAL.

Information regarding AAL environmental policies and/or International Material Data System (IMDS) requirements may be obtained upon request by contacting Corporate Environmental Management (see 3.1 AAL Supporting Documentation link for additional information).

2.16 Verification Reviews of Purchased Product

The supplier shall allow AAL, an approved 3rd party representative or our customers the right to verify, at the supplier's premises that the product and subcontracted product(s) conform to specified requirements. Prior to conducting such verification reviews, the responsible AAL contact shall specify both the arrangements and method of performing the reviews.

2.17 Product Identification and Packaging

Each container, rack, box, or pallet of material shipped to AAL shall be identified as instructed by the AAL receiving site. Unique requirements will be identified and documented by AAL at the Pre-Award Meeting or other formal communication.

Labelling must be done per AAL receiving site requirements. At a minimum, the Supplier Identification, Part Number, Engineering Level, Quantity and Batch/Lot Number must be clearly legible in both human readable and bar coded form on the part-packaging label. All bar codes must be scanned by the supplier to verify readability.

Identification shall permit traceability back to the specific supplier raw materials lot numbers, as well as the manufacturing, inspection and test records. The supplier should also be able to trace where products made under similar conditions (same raw material lot, same manufacturing line/batch, etc.) were shipped. Suppliers are required to utilize and ship material on a first in first out basis. Sequence of batches must be identified on the packaging label by either a date code or batch/lot number. Safety related identification criteria shall conform to all government regulatory and AAL requirements. No exceptions to this requirement shall be permitted unless acknowledged in writing by AAL.

Suppliers shall ensure their products are transported in a manner that prevents damage or deterioration to the product. Suppliers shall maintain documentation detailing proper packaging, cleanliness level, and storage and shipping instructions of its products. These instructions must conform to the AAL receiving site requirements.

2.18 Delivery Performance-

The supplier shall provide 100% conformance to the delivery requirements as specified by the AAL

receiving site. Costs incurred by AAL as a result of a delivery non conformance caused by a supplier shall be the responsibility of the supplier.
Upon request, suppliers shall submit corrective action plans for delivery non conformance.

2.19 Supplier Audit

Periodic Supplier Audit will be done by AAL on need basis. Supplier should submit the action plan to close non-conformances noticed during audit.(see the link under 3.1 AAL Supporting Documents for a copy of Part & Process Audit Checklist).

2.20 Contingency Plans

Suppliers are required to prepare contingency plans (e.g. Fire, Supply from External Party utility interruptions, labour shortages, key equipment failure and field returns) to reasonably protect AAL's supply of product in the event of an emergency, excluding natural disasters and acts of God.

2.21 Continuous Improvement

The supplier shall continually improve quality, delivery, cost and other services provided. To aid in fulfilment of this requirement the supplier's organization shall establish, monitor, prioritize, and act upon key performance objectives and targets. The objectives and targets should be established based upon (at a minimum) business plans, management systems, product quality, process capability, and customer satisfaction goals. Actions taken to regain previously sustained levels of performance are corrective actions, not continuous improvement.

AAL reserves the right to visit any supplier site to assess its continuous improvement programs and lean manufacturing practices, and make recommendations for improvement. In addition, AAL or may deploy personnel to focus on a specific improvement issues. In most cases, savings generated from these exercises will be shared between AAL and the supplier.

2.22 Supplier Problem Solving and Avoidance

Suppliers shall have trained (preferably certified) personnel with the ability to quickly and permanently resolve product and process issues using data driven problem resolution tools and techniques. Problem resolution must be conducted using a defined, structured process like the 8-Discipline process. (see 3.1 AAL Supporting Documents for a link to Defective Material Notification & 8D Summary), Six Sigma DMAIC (Define, Measure, Analyze, Improve, Control) or any process that includes verification of the root cause and validation of corrective action effectiveness.

Data driven techniques should also be used during the process design, verification and validation phases of the APQP process in order to prevent problems with new or changing products and processes. These data driven tools and techniques include but are not limited to: Failure Mode and Effects Analysis (FMEA), Measurement System Analysis (MSA), Statistical Process Control (SPC), Design of Experiments (DOE) and Taguchi Methods.

Product design responsible suppliers must use reliability methods during the product design, verification and validation phases of the APQP process in order to assure the robustness and durability of their product design for the intended application or as specified by AAL.

2.23 Supplier Performance Ratings - Score Card

AAL Production suppliers are required to monitor their performance monthly.
Every month Supplier Score Card will be sent within 10th of next month.

(Ex. Jan month Score Card will be sent within 10th of Feb).
Rating will be given based on the following Criteria:

Quality -	40%	Cost Performance-	15%
Delivery -	40%	Others -	5%

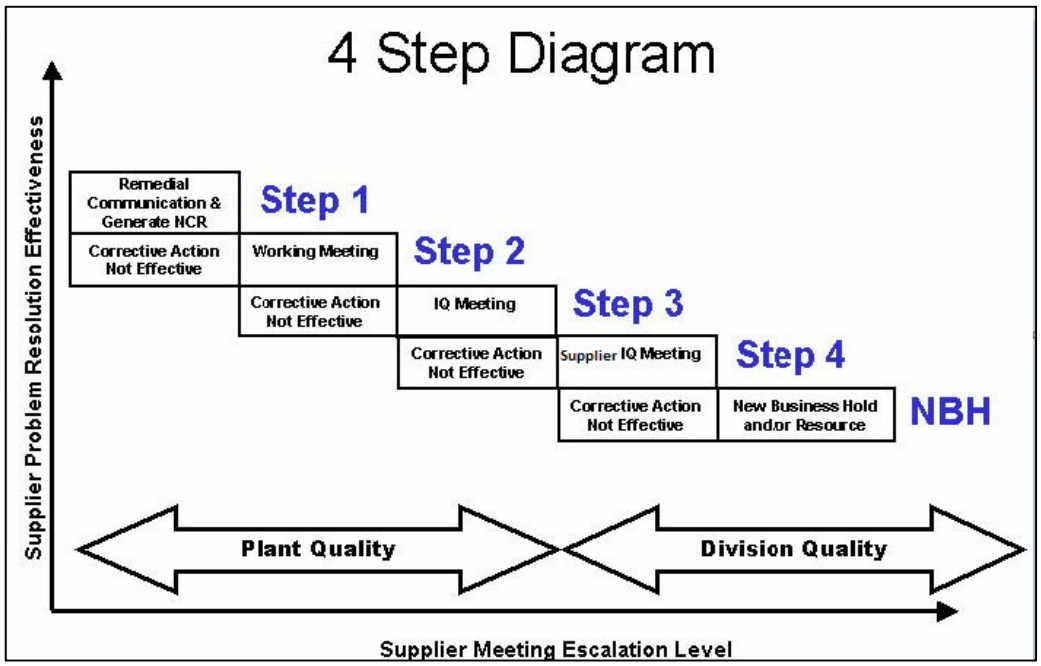
(See 3.1 AAL Supporting Documents for a link to Score Card),
Comparison of supplier's performance to these targets is one method used by our plants to determine if a supplier should be invited to an IQ meeting, Super IQ meeting or placed on New Business Hold (See Steps 3 & 4 below).

2.24 Supplier 4-Step Incoming Quality Process

AAL utilizes a 4-Step Incoming Quality Process to resolve supplier performance issues (e.g., quality, delivery, etc.). The four basic steps are shown in the diagram below:

Step 1 – Remedial Communication

A non conformance report (e.g. NCR, DMN, and Inspection Report) is issued when an AAL receiving site receives material or service that fails to conform to applicable quality and delivery specifications. Within 24 hours of receipt of the non conformance report, the supplier is required to submit a formal, interim Problem Solving Report (see 3.1 AAL Supporting Documents for a link to the Problem Solving Report (8D) to the AAL receiving plant quality department. At a minimum, this corrective action shall identify the problem, the immediate containment actions (including notifying all AAL receiving plants) that have been implemented to assure nonconforming product is not shipped to AAL, and the potential root cause(s) of the problem. Containment must comply with Section 2.24 of this manual. For non conformances related to Motor Vehicle or Environmental Safety or which cause a major disruption (e.g., stop shipment, line shutdown, yard holds), an action plan is required immediately after notification.



A completed Problem Solving Report (8D) shall be submitted no later than (15) days after receipt of the non conformance report, unless otherwise specified by AAL.
Costs and charges incurred by AAL associated with shipping, handling, processing, reworking, inspecting, engineering verification and replacing supplier responsible defective material including the costs of value-added operations prior to its discovery are the responsibility of the supplier.

Step 2 – Working Meeting

A working meeting is an AAL plant led activity to address specific supplier performance issues not resolved in a timely fashion at Step 1. Working meetings focus on the development of an action plan to prevent or eliminate the root cause of the issue. The supplier is expected to submit periodic updates until the issue is resolved.

Step 3 – Incoming Quality (IQ) Meeting

An IQ meeting is an AAL plant led activity to address supplier performance issues not resolved in a timely fashion at Step 2. The purpose of the IQ Meeting is to identify, and mutually agree to, all actions required for the permanent resolution of the systemic and particular issues that led to the Supplier's unsatisfactory performance. The supplier shall come prepared to address the following:

- Summary of events relating to the Supplier's performance concerns.
- Completed Problem Solving Report (8D) including containment actions, root cause analysis, corrective action and verification data and status.
- Preventive action plans and status to address systemic root cause(s)
- Strategic improvement plans

At the IQ meeting, AAL and the Supplier must agree on the Exit Criteria. In addition, action plans that exceed 60 days duration may require supplier justification and may warrant interim IQ meeting reviews. The supplier is expected to submit periodic updates until the issue is resolved.

Step 4 – Supplier IQ Meeting

A Super IQ meeting is a corporate led activity involving the Executive Management of both AAL and the supplier. The meeting addresses issues not resolved in a timely fashion during Step 3.

The supplier may be prohibited from bidding on new business and/or may be in jeopardy of losing current business at this stage of the 4 Step process. Suppliers who do not show improvement within 3 months of a Super IQ Meeting are automatically placed on New Business Hold. Suppliers who are placed on New Business Hold must remain in tolerance for six consecutive months in order to be removed from New Business Hold. Suppliers will be formally notified by their AAL buyer when they are placed on or removed off of New Business Hold.

AAL may request an extra audit from the supplier's registrar in cases of on-going performance issues. The cost of the audit will be the responsibility of the supplier.

2.25 Supplier Improvement Program (SIP)

AAL suppliers that are deemed to have Delivery or Quality issues may be added to the Supplier Improvement Program. Supplier Development leads the Supplier Improvement Programs with support as needed from all functional areas of AAL including Quality, Material Control, Purchasing and Engineering.

The focus of the Program is to affect systemic change at the supplier, including Management Involvement, to resolve issues that are causing the Quality / Delivery problems.

The SI Program status is reviewed with AAL senior management at report-out meetings which are held on a regular cadence. Candidates for the SI Program are determined based on their performance to AAL Quality / Delivery indicators.

The SIP expectation for the supplier is that their management team is driving systemic changes to

eliminate the cause(s) and improve the AAL performance indicators on a timely basis. Management's accountability and success in implementing the improvements to chronic Delivery/ Quality issues is critical to exiting the SI Program.
For issues related to Quality, assignment to the CSI Program can occur at any step of the Supplier 4-Step Quality Process (Section 2.23)

2.26 Containment Requirements

Containment for New Production Parts

a) Containment of new production parts starts with Pre-Production builds and continues through the first 90 days of production after PPAP approval.

b) New Production Containment requirements will be documented by the supplier in their Pre-Production Control Plan and must be reviewed by the AAL receiving site quality engineer for concurrence prior to any Pre-Production builds. Concurrence from AAL does not relieve the supplier of any responsibility or accountability to deliver 100% conforming product to AAL...

c) Suppliers may exit new production containment if they have achieved zero defects at the point of containment for 60 days after PPAP approval unless otherwise specified by AAL. If defects are found at containment during this time the counter is reset and 60 clean days must be achieved from that point.

d) AAL may require suppliers to perform off-line new production containment.

e) Suppliers are required to submit inspection data with each lot shipped to the receiving AAL plant. This should include variable measurement data, where applicable.

f) Suppliers shall develop action plans to address missed failure modes or capability improvement needs.

Containment for Nonconforming Parts

Suppliers shall implement Level I Containment immediately upon notification by AAL of a non conformance. Level I Containment shall include at a minimum:

a) Submission of a documented action plan for the containment of all parts within the supply chain. This includes, but is not limited to, parts at the supplier, in transit and at the AAL receiving plant. The plan will include a containment data sheet, PPM per batch, PPM per defect and an action plan to resolve the issues detected during the containment activity.
b) Regular communication of the containment results to AAL.
c) Communication of the manner in which product will be identified as quality assured/inspected by container or individual product.
d) On-site support to AAL and, in conjunction with AAL personnel, to AAL's customers as required.
e) Utilization of a third party inspection service when circumstances prevent the supplier from providing expedient and efficient containment.

Suppliers, whose containment actions have been ineffective, may be placed on AAL Level II Containment. Level II includes all of Level I, with the added inspection by an AAL approved 3rd party. The approved 3rd party will be contracted and paid for by the supplier. Based on the severity of the issue, AAL may elect to have the supplier go directly to Level II Containment.
Supplier shall remain in containment (either Level I or Level II) until permanent corrective action has been implemented and its effectiveness validated. Suppliers may exit from Level I or Level II containment when the following criteria have been met:

a) 30 days of production have shown zero defects at the point of containment unless otherwise specified by AAL. If a defect is found at containment during this time the counter is reset and 30 clean days must be achieved from that point.
b) A full Problem Solving Report (8D), with supporting evidence, for the concern that caused the containment to be initiated has been submitted to the AAL Receiving site and closure has been agreed.

Suppliers are required to accept all costs and charges incurred by AAL associated with the containment activity such as shipping, handling, processing, reworking, inspecting, and replacing defective material including the costs of value-added operations prior to the discovery of the non conformance, as well as third party inspection costs.

2.27 Product or Process Deviations

It is the policy of AAL to not accept product that does not meet the requirements of the applicable drawings and specifications. Requests for deviations on nonconforming product shall be submitted to the AAL receiving plant for review and approval and to obtain AAL customer approval, as required, prior to shipment. Deviations shall be approved only for a specific time period or quantity of parts. No permanent deviations are permitted.
A deviation request shall be accompanied by an 8D report. (See 3.1 AAL Supporting Documents for a link to (8D) report) Defective Material Notification & 8D Summary Report). This report shall include the identification of a clean point and the manner in which product will be identified, including how traceability will be maintained.

2.28 Warranty and Cost Recovery

Requirements for warranty and cost recovery are identified on AAL Purchase Agreement. AAL may identify other specific warranty requirements at the Pre-Award Meeting. In some cases, a separate warranty sharing agreement may be required by Procurement and/or the Business Unit.

2.29 Product Safety and Compliance Requirements

Advance Notification of Potential Safety Nonconformities: The Supplier must notify AAL as soon as reasonably practicable, after discovering any nonconformity relating to the performance of the product, in a way that contributes to unreasonable risk of death, injury or property damage, because of the product's design, construction, or performance. This communication must be in the form of a written notice. AAL and the Supplier will cooperate fully using AAL's Product Safety and Compliance (PSAC) process to identify the cause of the nonconformity and develop a plan for the prompt resolution of the nonconformity.

Regulatory Compliance: The Supplier must be knowledgeable in all applicable government statues, regulations and standards relating to motor vehicle safety.

Regulatory Notice: The Supplier must provide AAL copies of any data, materials or information provided to a government entity relating to the products supplied[1] to AAL, including any test, manufacturing, field performance or warranty data. The Supplier must provide the information within 10 business days from the date of submission to the government entity.

- The Supplier must promptly notify AAL, if it has provided information to a government, concerning recall of products that are Identical or Substantially Similar, regardless of whether such recall was voluntary or government mandated.

2.30 Charges for Supplier Responsible Non conformances

An appropriate charge may be imposed by the AAL receiving plant for the following reasons:

a) Non conformance Report (e.g. DMN) or Nonconforming Service.
1. Every DMN will be charged Rs 2000
2. CAPA not received within 7 days will be further charged Rs 1000
3. Cost of scrapping of parts at AAL(this will include value additions and administrative cost)

All the costs related to point no 3 will be notified separately.
Segregation Cost & Cost of Rework at in house will be taken up by AAL only incase of unavoidable Circumstances. Supplier will be notified & rework/segregation cost will be debited to supplier.

b) Nonconforming Product Deviation Requests.
c) PPAP submission rejections, delays or shipments of unapproved product.
d) Delivery Performance Failures (in addition to any specific costs incurred by AAL associated with the failure).

A supplier who causes an AAL line shutdown, may be required to reimburse AAL for the full cost of production downtime, as well as any OEM imposed charges. **(Costs and Charges incurred by AAL Associated with Shipping, Handling, Processing, Reworking, Inspecting, Engineering Verification and Replacing Supplier Responsible Defective Material Including the Cost of Value Added Operations prior to Its Discovery are the Responsibility of Supplier)**

If a supplier believes that they have been unfairly charged for administrative fees, they shall contact their Procurement representative to initiate a dispute resolution process. Note: Dispute resolution regarding actual non conformances should be handled through the plant Quality representative.

2.31 Record Retention

Suppliers are required to maintain production part approval process (PPAP) packages, annual layout and validation records, tooling records (Including Maintenance & Ownership – Product and Process Design If Any) traceability records, engineering records, purchase orders and amendments for the length of time that the part (or part family) is active for production and service requirements plus one calendar year or a minimum of 10 years whichever is longer, unless otherwise specified by AAL. Corrective Action records are to be retained for 5 years. Quality performance records such as control charts and inspection and test results are retained for 10 years.
The above time periods are considered “minimum”. All retention times shall meet or exceed the above requirements and any governmental requirements.

3.0 Supporting Documents

3.1 AAL Supporting Documents

For these and other AAL supporting documents, please refer to the appropriate item as follows:

- Acronyms and Definitions
- APQP Critical Supplier Status Report
- Defective Material Notification & 8D Summary Report
- Supplier Pre-Award Meeting Checklist
- Supplier Request for Product or Process Change.
- General Part and Process Audit.
- General Level5 PPAP Process Audit Format.
- Foundry PAPA Audit Format
- Foundry Level5 PPAP Process Audit Format
- Forging PAPA Audit Format
- Forging Level5 PPAP Process Audit Format
- Score Card

3.2 Supporting Industry Documents

The following publications are available from the Automotive Industry Action Group (AIAG). These documents contain information that is mandatory for suppliers to AAL:

- Quality System Requirements ISO 9001:2015 /IATF 16949:2016
- Production Part Approval Process (PPAP)
- Advanced Product Quality Planning and Control Plan (APQP)
- Potential Failure Modes and Effects Analysis (FMEA)
- Measurement Systems Analysis (MSA)
- Fundamental Statistical Process Control (SPC)
- CQI-9 - Significance and Application of CQI-9 Heat Treatment System Assessment. The North American automotive association AIAG (Automotive Industry Action Group) is publisher of the CQI standards (Continuous Quality Improvement).

4.0 Revision Record

Rev. #	Date	Revision Change
New	20.01.2014	New Release
01	28.08.2017	Updated, clarified and reviewed entire document., Added IATF 16949, Safety Critical Characteristics, Major Characteristics Added, Added IMDS Requirements, Added supplier improvement program, Appendix

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APPENDIX

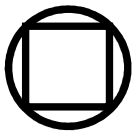
Special Characteristics

A Special Characteristic, also referred to as QCC or control characteristic, is either a Safety Related Characteristic (SRC) or a Major Characteristic of any component or assembly which requires particular attention on the part of the manufacturer to ensure conformance to specification. Special characteristics are designated by the accepted design control authority through:

- The application of special symbols on engineering drawings;
- Materials and process specifications;
- Appearance on a control characteristics list;
- Characteristics deemed major due to the supplier's manufacturing process;

All Special Characteristics require demonstrated production capability as described in the AIAG PPAP manual and SQSR sections 2.5 and 2.6.

Definitions of Special Characteristics and their AAL symbols are as follows:

Symbol	Classification	Definition
	**Major Characteristic**	A dimensional, material or standard which if violated, may cause a failure or malfunction resulting in: • A major repair • An inability to manufacture or assemble the product properly • A significant customer complaint
	**Safety Related Characteristic**	A dimensional, material, process performance specification or standard which if violated, may cause a failure or malfunction resulting in: • An unreasonable risk of personal injury or death, or • A condition of non-compliance with a Federal Regulation
	**Process Related Characteristic**	A process performance specification which if violated, may cause a failure or malfunction resulting in: • Product Failure • Reduction in Product Performance • A significant customer complaint
	**Safety Related Component**	Any part, component, assembly or system which contains one or more Safety Related Characteristics. Includes Meritor-owned designs and supplier designs developed exclusively for AAL