



SUPPLIER QUALITY MANUAL

REV. 7.0 9/15/11

1.0) SCOPE / PURPOSE:

MPMI recognizes the Global ISO/TS 16949:2009 Standard and other Customer requirements as they apply to automotive production and relevant service part organizations. In addition MPMI suppliers are required to establish documents and implement effective production, quality and management systems compliant with these requirements, including those specified by the Customer requirements.

This manual reinforces MPMI's Purchase Order Terms and Conditions and identifies MPMI's Customer specific requirements for direct material. QS9000, ISO 9001:2000, and ISO/TS16949:2009 are recognized standards by MPMI.

MPMI reserves the right to verify supplier compliance to QS 9000, ISO 9001:2000, and ISO/TS16949:2009 on-site for those suppliers identified as having a high impact to safety, fit, form, function, quality and/or Customer down-time.

1.1) SECOND PARTY CUSTOMER APPROVAL GUIDELINES:

MPMI requires all automotive production suppliers to verify their subcontractor's certification or compliance to QS 9000, ISO 9001:2000 or TS 16949:2002 quality systems.

AUTOMOTIVE SUPPLIER APPROVAL REQUIREMENTS ARE AS FOLLOWS:

- The Supplier must be ISO 9001:2000, QS9000 certified, or with a goal to be ISO 9001:2000 certified by April 28, 2007.
- The Supplier must utilize a qualified/ certified Auditor with evidence of successful completion of training.
- The Supplier must perform audits at each qualifying subcontractor and maintain records of these audits.
- The duration of these audits must be sufficient to review all elements in the subcontractors quality system.

2.0) ADVANCED PRODUCT QUALITY PLANNING (APQP):

- All automotive suppliers are required to produce advanced quality plans to support the development of new products and/or services, in accordance with the guidelines in the



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Advanced Product Quality Planning and Control Plan (APQP) manual published by the Automotive Industry Action Group (AIAG).

- All suppliers are required to report the status of plan activities on a regular basis.

3.0) NEW PRODUCT / PROCESS LAUNCH READINESS MEASURES:

The APQP process within MPMI's organization monitors and manages all suppliers from new product release through the start of production. MPMI may verify that new product / process launch readiness measures have been implemented by the suppliers to ensure that suppliers are able to produce in accordance with the requirements of the Purchase Order.

3.1) DESIGN REVIEW MEETING:

Design Review Meetings are held with selected suppliers to identify key product/process characteristics that must be statistically monitored to ensure stability.

3.2) SUPPLIER REVIEW:

Supplier reviews are done quarterly to evaluate supplier's performance. Rating items are listed under Section 7.0.

3.3) PRODUCTION RUN @ RATE:

- A Production Run @ Rate is performed to verify that a supplier's actual production process is able to meet program volumes at an acceptable quality level.
- Run @ Rate requirements will be provided by MPMI Quality Personnel.
- All suppliers are required to perform a Production Run at Rate, prior to launch.

3.4) LAUNCH SUPPORT:

During any program launch at MPMI, selected suppliers may be required to provide on-site representation. The supplier's launch support representative(s) must be knowledgeable, capable and empowered to make decisions.

4.0) PRODUCTION PART APPROVAL:

All suppliers are required to obtain full approval from MPMI per the requirements of the MPMI Supplier P.P.A.P. Procedure.

4.1) PRODUCT / PROCESS CHANGES:



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- All suppliers to MPMI must submit a Process Change Notification by the 20th of each month to show any changes that are planned for the near future or showing that none are planned at this time. Notification requirement is as per the latest revision of the published AIAG PPAP manual.
- All changes must be approved in writing in advance of the change.
- Submission for PPAP approval is required unless specifically waived.

4.2) PRODUCTION LOCATION CHANGES:

- All production location changes must be approved in advance by MPMI Quality as required in the latest published AIAG PPAP Manual, section titled, “Customer Notification & Submission Requirements.”
- Supplier must receive approval in writing from MPMI Quality via the Process Change Notification. The supplier must submit the Process Change Notification to MPMI in a timely manner so that MPMI can disposition the Process Change Notification, and ensure that the shipping lines full of current location parts until MPMI can approve PPAP for change.

4.3) TOOLING MODIFICATION, REPLACEMENT OR MOVES:

- MPMI Quality will dictate the requirements needed for any tooling change.
- The tool plan may include the requirements of a production bank if necessary to ensure MPMI Production and Service requirements are not affected.
- PPAP approval is required prior to the shipment of production material from the tooling change as well as an Exit PPAP from the prior facility.

4.4) PPAP SUBMISSIONS OVER 1 YEAR OLD

- All supplier PPAP’s over one year old are to be updated upon request of MPMI, regardless of the supplier’s business relationship with MPMI or it’s customers.

4.5) EXTERNAL PRODUCTION SUPPLIER EXTENDED SHUTDOWN / START-UP AUDIT:

- MPMI must be notified in writing prior to an extended production shutdown and must submit a completed Supplier Mass Production Readiness Process Audit to MPMI Quality.
- Examples of extended shutdown / start-up periods include Customer change-over, scheduled preventative maintenance for Tooling, Machinery or Processes or the



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anticipation of a work stoppage due to Union Contract Negotiations by the Supplier or its method of shipment.

NOTE: Approval of PPAP or Process Change does not eliminate the supplier from the liability for any defective product.

5.0) SUPPLIER CORRECTIVE ACTION REPORT (SCAR):

- MPMI conducts SCAR meetings at MPMI. Problem suppliers may be required to attend and present containment / corrective actions.
- Suppliers are required to use an 8-D corrective action form with a 5 Why root cause analysis form when conducting corrective action responses to MPMI.

6.0) CONTAINMENT POLICY:

All suppliers are required to have a containment process to provide additional verification – outside normal processes, prior to shipment. The process must include identifying containment actions, isolating concerns and implementing corrective actions in a timely manner. Exit criteria will be determined on an individual basis by MPMI Quality and Management.

6.1) LEVEL I CONTAINMENT:

Level I containment is required for new production start-up and engineering changes to contain any failure modes due to the learning curve of new start-ups.

6.2) LEVEL II CONTAINMENT:

Level II containment requires the supplier to implement extraordinary inspection of product to contain a specific failure. Containment actions must verify that requirements are met and be approved by MPMI Quality.

6.3) LEVEL III CONTAINMENT:

Level III containment requires the supplier to provide an independent third party to inspect product offsite prior to release for shipment to MPMI. Level III containment is initiated once the supplier fails to contain non-conforming product within their facility, following a Level II containment situation. MPMI requires that the supplier must notify their registrar if the supplier is placed at this level. MPMI also reserves the right to contact the supplier's registrar for any repetitive shortcomings in our suppliers quality systems or for any failures to address corrective actions in a timely and acceptable manner.



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7.0) SUPPLIER RATING SYSTEM:

All new suppliers to MPMI start out in a probationary status for the 1st 6 months. During this time information is gathered in order to grade them by the following scale.

- LEVEL A** - Excellent supplier no real issues or concerns.
- LEVEL B** - Good supplier with minimal quality or delivery issues.
- LEVEL C** - Acceptable supplier with some quality, cost, or delivery issues.
- LEVEL D** - Unacceptable supplier that will be recommended for outsourcing.

Suppliers that are not on probationary status shall be re-evaluated quarterly at a minimum. An immediate re-evaluation of a Supplier's rating can occur from the result of a supplier quality system failure.

MPMI evaluates suppliers performance based the following criteria:

- Rejected Parts per Million (PPM)
- Corrective Actions – Issued, Appropriateness and Timeliness of Reply.
- Delivery – On time & Correctness
- Service
- Competitiveness
- Conformance to the MPMI Supplier Manual
- Timeliness of Process Change Notification
- Cost Reductions Indicating an Effective Continuous Improvement Program

8.0) COST RECOVERY POLICY:

Suppliers are liable for all costs incurred by MPMI when the cause is the supplier's responsibility as outlined below:

- **OFF-SITE CONTAINMENT and /or SORTING ACTIVITIES** – Charges to suppliers will be based on local rates of where the sort takes place. Refer to the guidelines below regarding additional items that could fall in this area.
- **ADMINISTRATIVE CHARGE** – MPMI will pass on the cost of managing any rework or sorting of any supplier quality issue. This cost will be quoted at a rate at the time of occurrence and be dependent upon the estimated resources required to cover the management of these activities. A purchase order number will be required from the supplier before any activity is started representing the sorting and/or reworking activities that MPMI employees will be facilitating. An invoice will be sent or a debit will be applied to any outstanding payable to the supplier for this cost referencing this purchase order number.



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- **VALUE-ADDED COST** – Machining and assembly costs lost due to supplier defects found during / after machining / assembly.
- **OTHER CHARGES** – The following types of charges will be calculated on the actual time incurred for the associated action:

EXAMPLES OF COSTS THAT MAY BE CHARGED BACK TO THE SUPPLIER:

- Rework / Repair Supplier Fault
- Overtime to Avoid Production Interruption
- Production Down Time for MPMI and it's End Customer
- On-Line Containment
- Customer Returns including Hourly Charges and Transportation
- Administrative Costs, and On-Site Inspection Services
- Meeting Customer Environmental Reporting and Documentation Requirements.
- Tear-Down (Minor, Major & Complete) and Outside Lab Testing
- Receiving Inspection, Material Handling and Freight Associated with Scrap & Replacement Material
- Premium Freight Costs including Air Charter if Required
- Disposition of Supplier Fault Scrap
- Sorting of Suspect Material In-House, at Customer or Third Party Warehouse and Contractor Costs

9.0) ENVIRONMENTAL REQUIREMENTS:

- All MPMI suppliers must work proactively with MPMI Engineering and/or Quality to reduce the environmental footprint of MPMI products by complying with the environmental requirements of our customers. Materials, substances, recyclability, life cycle assessment (LCA) data, etc. are to be reported according to legal requirements and/or those of MPMI's customers.

10.0 ELECTRONIC DATA INTERCHANGE (EDI):

- All suppliers supplying production parts, assemblies, components and production materials are required to communicate to MPMI all capabilities for EDI and bar coding for product labels. Currently there is no MPMI requirement for scheduling nor shipping to MPMI via EDI.
- Suppliers are expected to be in compliance with Electronic Data Capabilities as specified per MPMI when necessary.