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## **General Introduction**

Standard Motor Products, Inc. Greenville Operations (SMP) is a registered TS-16949 facility. SMP has earned a reputation for providing products of consistent quality, competitive prices and flexible production scheduling capacity. Our ability to maintain this reputation greatly depends on the quality of the production materials purchased from our suppliers. For this reason, SMP considers its suppliers valuable assets for the achievement of quality objectives.

Suppliers with short lead times, competitive prices and flexible shipping abilities enable SMP to offer customers the dynamic partnership they have come to expect. Through long term, constructive relationships with suppliers, SMP continuously looks for opportunities to improve the flow of material and information, and ultimately to reduce costs and lead times. Suppliers to SMP must have a commitment to product quality and an understanding of the associated cost of poor quality when delivered to customers.

Our goal is to work closely with both new and existing suppliers to ensure that the quality level of products and services provided by each supplier meet Standard Motor Products, Inc. specifications, requirements, expectations, and satisfaction.

We have set our supplier goals to zero defects and 100% on time delivery, and with cooperation and open communication with our suppliers, we can achieve these goals. This manual is a significant step in developing an open line of communication, by defining our quality and responsiveness expectations

### **1 Scope**

This Supplier Quality Manual describes the supplier quality system implemented and maintained by Standard Motor Products, Inc. Greenville to meet the requirements of ISO/TS16949: 2009.

This manual will apply to all suppliers of Standard Motor Products, Inc. Greenville. (SMP), including distributors of catalog and “shelf” items. Compliance to the requirements within this manual as well as to the general terms and conditions of Purchase Orders is mandatory for all suppliers.

**It is the user’s responsibility to assure that only the latest revision of this manual is used.**

### **2 SMP Quality Policy**

SMP Greenville Management Team, with executive responsibility, has defined the organization’s quality policy and commitment to quality as follows:

- TOTAL CUSTOMER SATISFACTION – We ensure total customer satisfaction, focused on understanding and satisfying our customer’s needs.
- CONTINUOUS IMPROVEMENT – We will continuously improve products, processes and service through investigation, analysis, development, training and implementation of practices that will continually place SMP above our competitors.
- EMPLOYEE EMPOWERMENT – All employees are empowered to perform an effective and efficient role in controlling the quality of products and services provided.

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Standard Motor Products ensures that this policy is understood, implemented and maintained at all levels of the organization.

### 3 **SMP Quality Management System**

SMP Greenville has implemented and is maintaining a process based quality management system and is continually improving it's effectiveness in accordance with the requirements of ISO/TS16949: 2009. All products produced for customers requiring adherence to ISO/TS 16949 are produced to the standard.

#### 3.1 SMP Greenville has:

- 3.1.1 Determined the process, process sequences, and process interactions needed for the quality management system and applied them throughout the organization;
- 3.1.2 Determined criteria and methods needed to ensure the operation and control of these processes are effective;
- 3.1.3 Ensured the availability of resources and information needed to support the operation and monitoring of the processes.

#### 3.2 SMP Greenville:

- 3.2.1 Monitors, measures, and analyses the processes, and implements actions necessary to achieve continual improvement and planned results;
- 3.2.2 Is responsible for conformity to all customer requirements for outsourced processes.

### 4 **Supplier Quality System Requirements**

Due to the automotive industry's migration from QS9000 to ISO-9001 and TS-16949, Standard Motor Products, Inc. has also moved in that direction. In maintaining conformity to this new specification, we are required to develop and manage our supply base in accordance with the following requirement from the Technical Specification ISO/TS 16949.

#### **"7.4.1.2 Supplier Quality Management System Development"**

The organization shall perform supplier quality management system development with the goal of supplier conformity with this Technical Specification. Conformity to ISO 9001:2008 is the first step in achieving this goal. Unless otherwise specified by the customer, suppliers to the organization shall be third party registered to ISO 9001:2008 or TS-16949 by an accredited third-party certification body." If a supplier does not meet this requirement, they will not be considered for future business and must submit a plan of action to achieve this certification.

**Note 1: Supplier as defined above; include all products and services that affect SMP customer requirements such as subassembly components, finished goods, sorting/rework operations, and calibrations services.**

**Note 2: Suppliers are required to annually submit a copy of their Quality System Certification (ISO 9001:2008, TS-16949 etc) to be filed onsite at SMP.**

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#### 4.1 Heat Treating Processes

The applicability and effectiveness of heat treating processes shall be determined utilizing CQI-9, Special Process: *Heat Treat System Assessment* published by the AIAG (see 5.2 of this manual).  
The effectiveness evaluation shall include the organizations self-assessment, actions taken and that the records are maintained.

#### 4.2 Plating Processes

The applicability and effectiveness of plating processes shall be determined utilizing CQI-11, Special Process: *Plating System Assessment* published by the AIAG (see 5.2 of this manual).  
The effectiveness evaluation shall include the organizations self-assessment, actions taken and that the records are maintained.

*Note: If supplier provides heat treatment or plating services and do not conform to 4.1 or 4.2, a written waiver must be in place from Standard Motor Products.*

## 5 DOCUMENTATION

### 5.1 DEFINITIONS

<b>Shall</b>	Indicates a mandatory requirement
<b>Should</b>	Indicates a preferred approach
<b>Product</b>	Any product, part, or service provided to Standard Motor Products, Inc.
<b>Supplier</b>	Supplier to Standard Motor Products, Inc.
<b>PPAP</b>	Production Part Approval Process
<b>FMEA</b>	Failure Mode and Effects Analysis
<b>PPM</b>	Parts per million

### 5.2 REFERENCE DOCUMENTATION

Document	Description
ISO/ TS	Quality System Requirements (ISO 9001:2008 & TS-16949)
APQP	Advanced Product Quality Planning
FMEA	Failure Mode and Effects Analysis
MSA	Measurement System Analysis
SPC	Fundamental SPC
QSA	Quality System Assessment
PPAP	Production Part Approval Process
CQI-9	Heat Treat System Assessment
CQI-11	Plating System Assessment

#### NOTE:

**To obtain copies of these reference documents, contact:**  
**Automotive Industries Action Group**  
**26200 Lahser Road Suite 200**  
**Southfield, MI 48034**  
**(248) 358-3003**  
[www.aiag.org](http://www.aiag.org)

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### 5.3 SPECIAL CHARACTERISTICS

Special Characteristics are characteristics determined by SMP or its customers that require special manufacturing controls to assure compliance with specifications. The presence of special characteristics is not to diminish the importance of other specifications; rather, it is to identify those specifications that shall be part of any control plan for the production of the part, unless otherwise stipulated in writing by SMP. The data resulting from the control of the special characteristics should be maintained by the supplier and should be available for submission and/ or review by the SMP Quality Assurance Department.

### 5.4 PPAP/PSW/FIRST ARTICLE SUBMISSION

Prior to shipment of product to SMP, PPAP approval must be established either by SMP or its customers, for the relevant revision level of the product being supplied. If PPAP approval is performed by a customer of SMP, or a party other than SMP, (i.e. Automotive Manufacturer), a signed, approved PSW must be submitted and approved by SMP **prior** to shipment of the product to SMP.

The supplier shall submit to SMP a sufficient number of samples of material and supporting documentation for processing approval. Contact the SMP Purchasing Department/Quality Department for specific requirements. Retention/Submission Requirements available when purchase order is placed for product.

SMP will not accept product that has not been PPAP approved for the relevant revision level. Delivery of the material prior to PPAP approval or notification will result in the rejection of the material and a debit charge per incident/ part number plus any additional expenses incurred (sorting, scrapping, rework, etc).

**PPAP  
Submission Level**

	Level 1	Level 2	Level 3	Level 4	Level 5
<b>PSW</b>	R	R	R	R	R
<b>Prints and Specifications</b>		O	R	O	R
<b>Process Flow Diagram</b>		O	R	O	R
<b>DFMEA</b>		O	R	O	R
<b>PFMEA</b>		O	R	O	R
<b>Control Plan</b>		O	R	O	R
<b>Dimensional Layout</b>		R	R	O	R
<b>Functional Testing</b>		R	R	O	R
<b>Material Certifications</b>		O	R	O	R
<b>Capability Studies</b>		O	R	O	R
<b>Subcontractor Approvals</b>		O	R	O	R
<b>Dimensional Samples</b>		R	R	O	R
<b>Production Quantity</b>		O	R	O	R

O-Optional R-Required

@ Supplier

@ SMP

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## 5.5 PROCESS/MATERIAL SUPPORTING DOCUMENTATION

When required, the supplier shall submit supporting documentation as evidence of control of process and/ or control of specified material. This supporting documentation should come in the form of Certificates of Conformance/ Compliance, Material Certifications, and SPC data. Requests for the required supporting documentation are part of the purchase order. Missing documentation will be viewed as missing purchased material and may result in a rejection of the shipment.

## 6.0 QUALITY SYSTEM AUDITS

SMP Supplier Quality Assurance shall perform quality audits of the supplier's manufacturing process as deemed necessary. Self- Assessments by the supplier may also be deemed acceptable by SMP.

### 6.1.0 Conditions for Auditing

Conditions that may warrant a quality audit include, but are not limited to:

- Quality Issues/Performance
- Engineering/Process Changes
- New Supplier/Part Number

### 6.1.1 Audit Criteria/Scope

Scope, agenda, and criteria for any announced audit will be communicated to the supplier prior to the actual audit. Appropriate supplier support staff should be available for any audits as deemed necessary.

## 7.0 NON CONFORMANCES, CORRECTIVE/PREVENTATIVE ACTIONS

Upon notification of a "Non conformance" of material, the supplier shall initiate the following actions:

### 1. Initial Containment

Containment action shall be implemented within 24 hours of formal notification by SMP (written or verbal). Any verbal notifications shall be followed by written documentation of the concern.

#### **Containment actions shall consider all:**

- Affected material in the supplier's current possession, shelf -stock or warehouse facility
- Affected product in-transit to SMP
- Affected finished goods shipped to SMP customers

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## 2. Initial Response

A written response to the non-conformance shall be submitted to the relevant SMP Quality Assurance Engineer within **48 hours** (or otherwise agreed upon timeframe) of formal notification of the concern. This initial response shall document as a minimum:

- SMP Quality Assurance Engineer/SMP Purchasing Buyer
- Concern Description
- Containment Action Description
- Date and Identification of Certified Material
- Root Cause Analysis Status

**Note: Implementation of due dates and assigned responsibility shall be documented with any action listed.**

## 3. Corrective Action Report

A formal corrective action report shall be submitted to SMP within **10 working days** (or otherwise agreed upon timeframe) of formal notification of the concern. Implementation due dates and assigned responsibility shall be documented with any action listed. Verification of effectiveness should be documented as the final reporting step.

## 4. Documentation

FMEA's, Control Plans and other relevant documentation shall be revised to reflect the actions resulting from the concern. Relevant updates are to be noted in the formal corrective action report. Depending on the effect of the actions on the process or product (i.e., revision level changes), a PPAP submission may be required prior to additional shipments. These documents shall be maintained on file and are to be provided to SMP Supplier Quality Assurance upon request.

# 8.0 Supplier Evaluation and Development

## 1.0 General

SMP's objective is a close cooperation with suppliers to ensure that the quality level of received product meets our requirements and expectations and that delivery performance is maintained at an acceptable level. SMP Purchasing and Supplier Quality Assurance shall evaluate the supplier, in regards to their ongoing quality and delivery performance.

## 2.0 Performance

SMP Purchasing and Quality Assurance periodically conduct supplier evaluations to determine supplier ratings based on quality (goal = 0 defects), delivery performance (goal = 100% on-time), and supplier responsiveness.

Vendor score cards are issued to suppliers monthly based on the total spend and the supplier classification status.

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The Buyers review their designated supplier's ratings and score the Supplier Relationship Management items under the Supplier Performance Data screen. They will add comments as deemed necessary.

Supplier Ratings below 79 may require a corrective action plan at the discretion of the Materials Manager.

**The following are the overall rating scales for our scorecards.**

OVERALL SUPPLIER RATING

100	-	95	Exceptional
94	-	86	Acceptable
85	-	80	At Risk
79	-	Below	Unacceptable

## 9.0 FAILURE COST AND SUPPLIER DEBITS

SMP reserves the right to debit to the supplier any additional costs incurred due to supplier or product non-conformance. Debit amounts are calculated based on the following scale:

Production Disruptions:	
<b>Line Shutdown/Production Changeover</b>	<b>\$ 1000 /hr/line</b>
Sorting:	
<b>Preparation (sort/ rework/ setup/ training/ material handling/ booking)</b>	<b>\$ 50/hr</b>
<b>Sorting of material (receiving/ incoming/ warehouse/ in process/ finished goods)</b>	<b>\$ 50/hr</b>
Rework:	
<b>Setup/ Training/ Booking</b>	<b>\$ 50/hr</b>
<b>Rework activity</b>	<b>\$ 50/hr</b>
<b>Tooling/ Equipment</b>	<b>\$ 50/hr</b>
<b>Testing/ Inspection</b>	<b>\$ 50/hr</b>
Additional Costs:	
<b>Scrap (Components, semi-finished, finished goods)</b>	<b>As incurred</b>
<b>RTV value</b>	<b>As incurred</b>
<b>Packaging/ Warehousing/ Handling</b>	<b>\$ 50/hr</b>
<b>Freight charges/ Premium freight charges</b>	<b>As incurred</b>
<b>Engineering /Technical Charges</b>	<b>\$ 60/hr</b>
<b>Administrative charges</b>	<b>\$ 100/debit</b>
<b>Other charges (e.g. customer failure costs)</b>	<b>As incurred</b>

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## 10.0 Customer Owned Property

### Tooling, Equipment, and Gauges Identified

Supplier shall exercise care with all customer property while it is under the suppliers control or being used by the supplier. The supplier shall identify, verify, protect and safeguard the customer property. If any property is lost, damaged or otherwise found to be unsuitable for use, this shall be reported to SMP and records shall be maintained. Customer property may also include returnable packaging, tools, inspection tooling and equipment. All property shall be permanently marked so the ownership of each item is visible and can be verified. SMP purchasing may provide customer tooling tags for customer owned tooling and may provide additional instructions concerning these tooling tags.