Michigan Rubber Products

SUPPLIER QUALITY ASSURANCE MANUAL

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SECTION 0 - ADMINISTRATION

0.1 PURCHASING SYSTEMS MANUAL

This document is issued for and on the behalf of Michigan Rubber Products, Cadillac, Michigan, which encompasses Michigan Rubber Products operations as depicted in Section 1.2 of this manual.

The procedures referred within this document represent the Purchasing Systems for Supplier Development and shall always be followed.

This document shall not be amended unless authorized by the Quality Manager & the Supplier Quality Engineer.

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The authority for approving the issue and re-issue of this manual and amendments are solely those of the Quality Manager and the Supplier Quality Engineer of Michigan Rubber Products, Cadillac, Michigan.

0.2 AMENDMENT RECORD

Amendments to this manual are authorized as detailed in Section 0.1. The amendments are made by replacement of the applicable page(s) on which the amendment number is noted. The manual will be reviewed annually by the Supplier Quality Engineer and updated as appropriate. The manual will be completely re-issued after ten amendments. ***In most cases, text that has changed will be in Italic print.***

AMENDMENTS ISSUED SINCE PUBLICATION

Amendment No.	Date of Issue	Page(s) Replaced	Authorized Signature
	8-01-2016	First Issue	Frank E. Armstrong

0.3 TABLE OF CONTENTS

Table of Contents

PAGE

SECTION 1 - INTRODUCTION .....

1.1 Scope 6
1.2 Description of the Company 6
1.3 Statement of Quality Objectives 6
1.4 The Michigan Rubber Products Quality Policy 7
1.5 Michigan Rubber Products Environmental Policy 7
1.6 Statement of Continuous Improvement Principles 8

SECTION 2 - MANAGEMENT .....

2.1.1. Statement of Quality Policy 9
2.1.2. Management Responsibility 9
2.1.3. Management Philosophy 9
2.1.4. Business Practices 10

SECTION 3 - SUPPLIER PERFORMANCE .....

3.1.1. Introduction 11
3.1.2. Purpose 11
3.1.3. Quality System Procedures 11
3.2.1. Advance Product Quality Planning (APQP) 12
3.2.3. Control Plans 13
3.2.4.1. Production Part Approval Process (PPAP) 13
3.2.4.1.1 Approval of Supplier Subcontractors 14
3.2.4.2. Annual Layout Inspection 14
3.2.5. Continuous Improvement 14
3.5.1. Records, Prints & Specification Change Control 16
3.6.1. Michigan Rubber Products Supplier Development Process 16
3.6.2. Supplier Candidate Selection 17
3.6.3. Quality System Assessment 17
3.6.4. Michigan Rubber Products Approval Process 18
3.6.5. Supplier Performance Classification Ratings 18
3.6.6. Supplier Performance Rating System (SPRS) 18
3.6.6.1. Category I Ratings 19
3.6.6.2 Category II Ratings 20
3.6.6.3 Category III Ratings 20
3.6.7. Michigan Rubber Products Merit/Demerit Program 21
3.6.8. SCAR & DPR Handling 21
3.6.8.1 SCAR - Defective Material Reject Ticket 21
3.6.8.2 DPR - Delivery Performance Report 22
3.6.8.3 Responsiveness Scores 23
3.7. Michigan Rubber Products Supplier Distributors 23
3.8 Other Supplier Requirements 24
3.8.1 Diversity & Minority Suppliers 24

3.8.2 Health & Safety Policy Statement 24
3.8.3 Supplier Code of Conduct 25
3.9. Controlling Manufacturing Process/Product Traceability 25
3.9.1. Inspection & Product Monitoring 26
3.9.2 Bypass Management 26
3.10 Incoming Material Quality 27
3.11 Measuring Systems Equipment 27
3.11.1 Gage Measurement Review 27
3.12. Defects or Nonconforming Materials 28
3.12.1. Segregation or Quarantine Control 28
3.12.2 Rejected/Defective Parts/Material 28
3.13. Corrective & Preventative Action 29
3.14 Statistical Process Control 30
3.15 AIAG Information 31

SECTION 4 - QUALITY SYSTEM ASSESSMENT .....
4.1.1 Purpose of the QSA 32
4.1.2 Applications 32
4.2.1 Applicability 32
4.3.1 Assessment Method 32
4.4.1 Method of Audit Scoring 33
4.4.2 Element Scoring 33
4.4.3 Audit Summary Scoring 33
4.4.4 Supplier 3rd Party Audits 34
4.4.4 Term Definitions 34

SECTION 5 - ADDITIONAL REQUIREMENTS .....
A. Bulk Material Approval Process (BMAP) 36

SECTION 6 - APPENDICES .....
A. Sample Corrective Action Report - 8D 37
B. Flowchart of Supplier 8D Response Methodology 38

SECTION 1 - INTRODUCTION

1.1 SCOPE

This manual and the procedures referenced describe the Purchasing System, Supplier Development Program, which is prepared to meet the particular requirements of IATF16949, and any other specific customer requirements as, identified. This manual provides, on subsequent pages, a description of the company, details of Supplier Quality policy and objectives, with relation to Supplier Development.

1.2 DESCRIPTION OF THE COMPANY

Michigan Rubber Products is dedicated to continuous improvement and excellence in both our products and service to our customers; and additionally recognizes the need for a close working partnership with our selected suppliers. This relationship will benefit both parties in our quest to be World Class Manufacturers & Suppliers.

This manual contains the specific quality control elements and supporting activities required for all purchased part suppliers.

At this time, this Supplier Quality Assurance Manual applies only to Michigan Rubber Products operations; to include incoming components, raw materials, and any other products received at this facility.

1.3 STATEMENT OF QUALITY OBJECTIVES

It is the goal of Michigan Rubber Products to provide the best quality product with World Class Quality, to all of our customers. To be able to fulfill this quality objective and vision, it is imperative that Michigan Rubber Products purchase and obtain nothing less than quality products and raw materials from our suppliers. By ensuring and insisting on only quality products and raw materials, Michigan Rubber Products can thus implement and maintain a comprehensive quality program to meet the Statement of Quality Policy, and thus fulfill the "Statement of Continuous Improvement Principles." This quality program is based upon companywide "Cost Effective Total Quality Management" and systems conforming to the requirements of IATF16949; as well as any customer specific contractual requirements and legislative standards, whenever applicable.

Further, our objective is to maintain and seek continuous improvement to meet and exceed the needs and requirements of our customers. To maintain through the use of quality assurance and statistical process control, the provision of supplies "Right First Time" at minimum cost. To

ensure that all personnel apply this quality policy and are actively involved in the quality improvement program. To regularly review the quality program to ensure its continued effectiveness, and continuous improvement activities.

1.4 MICHIGAN RUBBER PRODUCTS QUALITY POLICY

Michigan Rubber Products (MRP) is committed to meeting or exceeding customer expectations through continually improving our products, processes and Quality Management System. MRP will comply with local, state, federal and ISO requirements. It is the goal of MRP to manufacture high quality products, at the lowest feasible cost, delivered to our customers in a timely manner.

1.5 MICHIGAN RUBBER PRODUCTS ENVIRONMENTAL POLICY

Michigan Rubber Products is registered to ISO 14001 and thus is committed to protecting the environment in the community in which we work and live. We recognize that by integrating sound environmental management practices into all aspects of our business, we can offer technologically innovative products while conserving and enhancing resources for future generations. Michigan Rubber Products strives for continual improvements in our environmental management system and in the environmental quality of our products and processes.

As a result of our commitment to environmental safety, Michigan Rubber Products seeks to work only with those suppliers who share that same commitment. While MRP will not require a supplier to be ISO 14001 registered, we do require you operate in an environmentally safe mode, free from polluting or in any way damaging the environment, and further that you partner with us in conserving and enhancing resources for future generations. MRP will not work with any organization that has intentions contrary to this goal.

1.6 STATEMENT OF CONTINUOUS IMPROVEMENT PRINCIPLES

Michigan Rubber Products considers continuous improvement (the theme of Total Quality Management) to be of great importance in achieving sustainable Business Excellence throughout the Company.

- Quality (continuously meeting customer requirements) is as defined by the customer; the customer wants products and services that, throughout their life, consistently meet or exceeds their needs and expectations at a cost that represents value.
- Quality Excellence can best be achieved by preventing problems rather than by detecting and correcting them after they occur.
- All work that is done by company employees, suppliers and product outlets is part of a process that creates a product or service for a customer. Each person can influence some part of that process and thereby, affect the quality of its output and the ultimate customer's satisfaction with our products and services.
- Sustained quality excellence requires continuous improvement. This means, regardless of how good present performance may be, it can always become better.
- People provide the intelligence and generate the actions that are necessary to realize these improvements.
- Each employee is a customer for work done by other employees or suppliers, with a right to expect good work from others and an obligation to contribute work of high caliber to those who, in turn, are his or her next customer.

The goal of Continuous Improvement principles is to achieve superior external and internal customer satisfaction levels leading to measurably superior Business Excellence results throughout all its operations. Each employee's commitment to the precepts of Continuous Quality Improvement and management's further commitment to implementation of supporting managerial and operating systems is essential to realizing that goal.

Each employee is responsible for the continuous review of existing systems and procedures, and for improving them, as required, in line with this statement.

SECTION 2 - MANAGEMENT

2.1.1 STATEMENT OF QUALITY POLICY

The management team considers total customer satisfaction to be of great importance in achieving sustainable Business Excellence throughout the company.

Michigan Rubber Products management practices and employee work activity will, without exception, promote on time delivery of products and services that are consistently in conformance with customer requirements.

The company is committed to a policy of "Right First Time" (i.e. prevention) and to a policy of continuous improvement in the quality of products and services, throughout its supply chain.

2.1.2 MANAGEMENT RESPONSIBILITY

Michigan Rubber Products has committed to the principles of IATF16949, and thus to an aggressive supplier development program. Michigan Rubber Products places the responsibility of the supplier development program within the Purchasing Manager. Purchasing Manager and the Supplier Quality Engineer shall have the responsibility of monitoring and developing the performance of suppliers.

2.1.3 MANAGEMENT PHILOSOPHY

Michigan Rubber Products is a major supplier to the world's automotive equipment manufacturers. Michigan Rubber Products customers are of the most demanding in the world, demanding "world-class quality,"(*) specifying a supply of defect-free product, delivered on time, and at a world competitive price. MRP has chosen to fulfill this commitment utilizing IATF16949 as our fundamental quality system.

To ensure Michigan Rubber Products success, we must rely on our suppliers to meet those same requirements, with the goal being to develop a community of suppliers who are best in class in the products and services rendered. Therefore, it is Michigan Rubber Products belief that the way to achieve this goal is for MRP and all of it's suppliers, to not only meet, but exceed the customers' expectations, where possible.

Michigan Rubber Products Supplier Quality Program places **emphasis on defect prevention, rather than defect detection**. Defect prevention reduces the cost of reworks, scrap, return product, and helps prevent untimely delays. Defect prevention is achieved through robust design, sound quality planning thru Advanced Product Quality Planning (APQP), proven process capabilities, and the use of statistical process control. Striving to continuously improve our products and processes, requires

the same commitment from our suppliers. Part of our quality commitment emphasizes that our personnel are available to assist in resolving manufacturing problems concerning purchased products where practical. All of this will allow us to complete our goal in the timely manner that our customers demand. Thus, the initial action of both the supplier and Michigan Rubber Products, is to recognize that WE are a supplier to a customer. MRP has affirmed their commitment, and now the supplier has to ask the same questions. What do you do to satisfy your customer's requirements? Is the management committed? What does a customer expect from you? Is management committed to consistent Quality and Continuous Improvement? Are you taking steps to reduce scrap, rework and rejections?

(*) "World-class quality" is the ability to purchase and sell products consistently conforming to specifications that promote the growth of both the supplier and the customer to compete successfully in the "world market."

2.1.4. BUSINESS PRACTICES

All purchases made by Michigan Rubber Products are made through purchase orders, EDI (Electronic Data Interchange), or purchase releases issued under the terms of a blanket purchase order. No other communication is considered valid for the purpose of entering into a contract with a supplier of goods and services. MRP issues purchase orders and releases. Suppliers providing goods and services in conjunction with the descriptions and prices listed on the purchase order are doing so in accordance with the terms and conditions listed on the purchase order. MRP's purchasing procedures direct that all communication regarding quotations, pricing and ability to supply be made through the Michigan Rubber Products Purchasing Department.

It is Michigan Rubber Products' responsibility to appraise the supplier's quality performance in a fair manner, and it is the supplier's right to be aware of this appraisal. If deemed necessary by MRP, the supplier must permit the Michigan Rubber Products representatives (or our customer) access to the facilities where we can perform a source inspection, or any other associated function that involves the assurance of contractual obligations.

SECTION - 3 SUPPLIER PERFORMANCE

3.1.1. INTRODUCTION

This manual has been developed to acquaint Michigan Rubber Products' suppliers with our expectations and our suppliers' responsibilities to ensure that all materials furnished to MRP, comply with all purchase order requirements, blueprint specifications, PPAP where applicable, and any Government standards that may apply.

3.1.2 PURPOSE

Michigan Rubber Products requires each supplier to establish, maintain, and document a quality system that helps to achieve compliance to IATF16949. Michigan Rubber Products Supplier Quality Assurance Manual SQAM-01 describes the fundamentals that must be in place in each supplier's quality system, to provide the foundation for being a consistent quality supplier, and to gain future business. Michigan Rubber Products expects each supplier to be responsible for building on these fundamental principles to develop an effective quality system that promotes continuous improvement in quality and productivity, thus mutually benefiting the supplier and Michigan Rubber Products. Therefore, the requirements outlined in this manual are the foundation for a sound quality system and the essential element of maintaining continual "preferred" supplier status with Michigan Rubber Products.

3.1.3. QUALITY SYSTEM PROCEDURES

Michigan Rubber Products subscribes to the IATF16949 requirements and requires suppliers to adopt and use ISO/IATF16949 to develop and improve upon their Quality Systems. Compliance to ISO/IATF16949 applies to all internal and external suppliers. Michigan Rubber Products Supplier Quality Assurance Manual SQAM-01 is created in conjunction with IATF16949. (Note: Supplier compliance to ISO9001:2015, is not inclusive of IATF16949). If a supplier has an ISO certification only, and notIATF16949, the supplier is still responsible for compliance to the requirements of IATF6949 Quality Operating system. MRP expects all of it's suppliers to be compliant to or certified to IATF 16949.

Supplier to Michigan Rubber Products will initially be reviewed with a self-assessment and may be periodically reviewed by Michigan Rubber Products representatives as deemed necessary.

The requirements within this manual are in addition to, and therefore do not replace any of the purchase order, engineering drawing, or specification requirements. The supplier is not relieved of their responsibility to ensure that each part, or product, meets all of the requirements specified by Michigan Rubber Products.

It is the supplier's responsibility to notify Michigan Rubber Products in writing, or by fax for any alteration to the product line, or product deviation, otherwise full compliance is expected. Any changes to the process, product, or part, must be conveyed to, and approved by Michigan Rubber Products Operations prior to making the change, and where applicable, a new PPAP must be submitted.

A product specification is a group of specific parameters necessary to ensure "fit-for-use" quality. There are five basic types of specifications, they are:

1) ***Product specifications*** - The details and tolerance of items needed to perform a function.
2) ***Process specifications*** - The parameters of the manufacturing process that must be controlled to consistently produce a conforming product.
3) ***Analytical specifications*** - The methods of accuracy and calibration of the measurement system.
4) ***Raw Material specifications*** - The specifications of raw material entering the manufacturing process and product.
5) ***Quality Management specifications*** - The management practices that control the manufacturing process and the quality assurance thereof.

The process and analytical specifications can be further defined as:

1) The manufacturing of the design to include the particular process/analytical needs, assembly, mechanization and/or installation of components.
2) The ability to inspect and test the design/prototype, including any special inspection, measurement, or test requirements, prior to production.
3) The specification of materials, components, and subassemblies to include the approved supplies and suppliers thereof, and availability.
4) The packaging, storing, handling, and any shelf life requirements, especially in relation to MSDS and safety factors.

3.2.1. ADVANCE PRODUCT QUALITY PLANNING (APQP)

Suppliers are to follow and utilize the principles of the AIAG Advance Product Quality Planning (APQP) *methodology* to perform Quality Planning. Where applicable, suppliers may be requested to participate in Advance Quality Planning (APQP) meetings. The purpose of the meeting would be to ensure the supplier understands the design intent of the intended component application. This meeting would afford the supplier an opportunity to assist in the development of the product launch. This review would additionally afford the supplier the opportunity to discuss feasibility of tolerance, materials, and the actual manufacturing of the product as specified.

The supplier shall utilize some form of pre-production planning. Some suggested methods are:

Design & Process Failure Modes & Effects Analysis (DFMEA, FMEA)
Feasibility Review
Quality Function Deployment (QFD)
Design of Experiments (DOE)
Mistake Proofing or "Poka-Yoke" Devices Implemented

The purpose of these programs is to understand how the selected materials and design properties or characteristics affect the final product's significant characteristics within the customer application, downstream manufacturing, assembly, and processing. In addition, to further assure the process capability of all significant design characteristics, and to build a network of written communication between all activities involved in product and processing design and build activities. It is the supplier's responsibility to provide documentation of the care exercised in product and process development, it's monitoring, and the quality control exercised. **The supplier should convene internal multi-disciplinary teams to prepare for production of new parts or engineering changes to existing products.**

3.2.3. CONTROL PLANS

All suppliers that produce a product or raw material are required to submit control plans, FMEA's, and flow chart/diagram of their process, which needs to reflect the entire process flow from the receiving of raw materials, through to the shipping department. These will designate the quality assurance and preventive controls that will be used to monitor all significant process parameters, significant product characteristics, and ES test characteristics, where required.

An updated or revised control plan must be sent to the Supplier Quality Engineer for approval prior to making any process or production change. Whenever a defect is received from a supplier, an 8D will be required, AND the corrective action needs to become an item to be added to the FMEA, as well as the control plan

3.2.4.1. PRODUCTION PART APPROVAL PROCESS (PPAP)

For all components, or production parts, manufactured for Michigan Rubber Products, the supplier shall comply with and submit a PPAP per the AIAG PPAP manual, at **Level Three** submission, unless otherwise directed by the Supplier Quality Engineer. This PPAP submission shall include, but is not limited to, developing and submitting a Control Plan, PFMEA, Material Certification, and Process Flow Diagram that outlines the controls, methods, and frequency of inspection. The documents should also identify areas of failure as well as the action plans associated with those failures for all MRP Products and Services. The PPAP submission needs to be formatted in the standard AIAG format.

Designated Control, Critical or Significant Characteristics, shall be defined within the purchase order, or on the blueprint from the customer. Characteristics with the appropriate symbols indicated on the blueprint, or as specified on the purchase order, **must meet the required Ppk and Cpk requirements as outlined within the PPAP manual.**

All materials used in part manufacture shall satisfy current governmental and safety constraints on restricted, toxic, and hazardous materials; as well as environmental, electrical, and electromagnetic considerations applicable to the country of manufacture and sale. A properly descriptive ***"Material Safety Data Sheet***" must be supplied prior to, or concurrently with the initial shipment, as well as any revised/updated copies as applicable.

All material lab data must be less than one (1) year old, and show actual test results to specifications. It will be the supplier's responsibility to re-certify the production parts material and dimensional information as directed by the purchase order, or as requested by the MRP Supplier Quality Engineer.

Annual PPAP "recertification" will be submitted at "Level 4" and sent to the Supplier Quality Engineer. Michigan Rubber Products PRIOR approval MUST be obtained before any changes a re made to the Part, Material, Chemical Formulas, Processes, Tooling or Process Controls, Manufacturing Location or subcontractors, and/or any other changes that would alter the final product to us.

3.2.4.1.1. APPROVAL OF SUPPLIER SUBCONTRACTORS

As a supplier to Michigan Rubber Products, it is your responsibility for the product quality and specifications for any part or service that you may subcontract. Therefore, it is also your responsibility to ensure that those suppliers are operating under a controlled system of evaluation and review, and where ever possible, you should use ISO/IATF16949 certified or compliant subcontractors. You will additionally be responsible to submit the Level 1 PPAP to us for any components subcontracted outside your product submitted to us.

3.2.4.2. ANNUAL LAYOUT INSPECTION

Automotive OEM's require an annual layout inspection, and thus the supplier is responsible for maintaining an up-to-date file of the applicable drawing and its inherent specifications. If the blueprint is the supplier's own design, it is the supplier's responsibility to ensure an update revision level is submitted to the receiving facility and to the MRP Supplier Quality Engineer. Annual layout inspection must be performed at least once per year, and an annual "Re-certification" PPAP Level 4, per the PPAP manual, AIAG, is completed and submitted to the Supplier Quality Engineer on a timely basis.

3.2.5 CONTINUOUS IMPROVEMENT

Michigan Rubber Products will accept only purchased raw materials, components or processes which meet the specifications and intent of the purchase order and/or criteria agreed upon by Michigan Rubber Products. MRP's Acceptance Criteria is ZERO DEFECTS; preferred supplier status requires 100 PPM or less. PPM defects will be included as part of your supplier "score card" and can affect the offer of future business with Michigan Rubber Products. It is the supplier's responsibility to report actual sort, defect and/or rework product results. If no report is submitted, full lot rejections will be used to calculate the supplier's PPM annually.

The supplier should be working towards continuous improvement projects to improve in areas such as:

a) Volume Efficiencies
b) Inventory Reduction.
c) Process Improvements to enhance manufacturing capabilities.
d) Part Design for improved Cpk/Ppk values.
e) Reduction of scrap materials.
f) Optimization of time, space, and labor to eliminate unnecessary operations.
g) Any other area that would impact quality and cost improvements, i. e.lean manufacturing, value analysis, value engineering, etc.

Continuous improvement activity not only improves your process capabilities, but assists in reduction of waste, rework, scrap, and puts more dollars on your bottom-line. Continuous Improvement activities help your company remain competitive in areas such as pricing, quality and growth. Michigan Rubber Products takes an active approach in Lean Manufacturing implementation; if you are able to become

more competitive, Michigan Rubber Products in turn can also be more aggressive competitively against our competition, and thus we both prosper.

There are 8 Basic steps to consider for Continuous Improvement:

Step 1 - Target a Part/Process:

Whenever targeting a part or process improvement, the following areas should be considered:

a) Product Quality - review continuous or repetitive customer concerns, both internal and external.
b) Reduction of Process variability - tighten up the dispersion.
c) Use control charts to tighten tolerance requirements.
d) Possible reduction in manpower, via lean manufacturing.
e) Possible approved alternative material at a lesser cost.
f) Reduce down-time, cycle times where possible thru the use of SMED's, etc.

Step 2 - Assign A Team:
Establish a cross-functional team composed of members from management, production, operators, engineering, quality and costing/quoting personnel.

Step 3 - Evaluate the Part/Process Cost Breakdown:
Analyze the cost of the component and/or material, the cost of labor, the cost of scrap and poor quality (rework, etc.), and the cost of overhead and machine time/maintenance.

Step 4 - Study the Part/Process Quality Background:
The present flow, control plan and FMEA should be reviewed and considered for possible improvements or failure-proof mechanisms. Any and all corrective actions related should be reviewed to improve upon the quality of the product, to ensure all the failure modes are addressed and to ensure that any proposed changes are not only feasible, but also do not interrupt the product flow or disturb product integrity.

Step 5 - Brainstorm Activity:
Ensure all team members have complete understanding of the objectives. Write down any and all ideas presented, regardless of how insignificant or silly the ideas seem at the time. The thoughts presented may stimulate further thought or discussion that may apply later on. Then finally review all ideas. Choose, combine or delete any ideas that may or may not be valid for the objective intended. For this step, it is recommended that you utilize a Fishbone diagram to help diagram the potential problem areas.

Step 6 - Categorize All Ideas:
Evaluate the complexity and assign a value to be gained for each idea. Prioritize all ideas - it's handy to put all brainstorming ideas on post-its. Then rearrange in priority order.

Step 7 - Plan Improvement/Assign Responsibilities:
Assign the team leaders to head up projects. The assigned team leader should develop the project teams. Target the completion dates for projects to ensure project assignments are carried out in a timely manner. Test the plan objectives to ensure they are feasible for implementation. Verify effectiveness both before and after any anticipated changes.

Step 8 - Implement Improvement Plan:
Track the progress against the proposed dates, and continuously update the plan as the situation may change. Things to consider prior to implementation are to:

1) Ensure the methods do not have an inverse or negative effect on the part or process,
2) Ensure raw materials can be conveniently accessed,
3) Perform all required testing to ensure any changes meet the product specifications, and
4) Obtain approval from Michigan Rubber Products prior to implementing any change.
5) Always have an alternative or back-up plan.

3.5.1. RECORDS, PRINTS & SPECIFICATION CHANGE CONTROL

Written authorization must be obtained from Michigan Rubber Products prior to making any product, material, or processing change. All such changes must be requested in writing to the Supplier Quality Engineer, and none shall be incorporated into the supplier's production system until such authorization is received. Suppliers must have written authorization from Michigan Rubber Products prior to incorporating any changes into production that affect the form, fit, function, durability, or interchange ability of any product or component part finished to MRP.

It is the supplier's responsibility to ensure that the copies of all applicable drawings, blueprints or specifications are available, up-to-date, and fully understood by the personnel within the supplier's organization that is directly responsible for assuring compliance with the specified requirements. If copies are not in the supplier's possession, or when clarification and/or interpretation is required, it is the supplier's responsibility to obtain the assistance or necessary information required through the Supplier Quality Engineer at Michigan Rubber Products.

3.6.1. MICHIGAN RUBBER PRODUCTS' SUPPLIER DEVELOPMENT PROCESS

Michigan Rubber Products maintains an ongoing supplier development program based on ISO/IATF16949. Key suppliers that are not ISO/IATF16949 certified will be required to submit the Michigan Rubber Products Self-Assessment Audit every two years. Failure to complete the Self-Assessment when requested may result in the supplier being reclassified, or placed on "NEW BUSINESS HOLD." These self-assessments will be reviewed and proof of continuous improvement may be required.

Michigan Rubber Products has created this manual for the purpose of Supplier Development in accordance with ISO:IATF16949, therefore, it is the responsibility of the supplier to maintain updated versions of that manual, PPAP, and APQP manuals. Suppliers must have a Quality Operating System in place that addresses or satisfies the fundamental elements of IATF16949, Section 4, and three (3) Customer Specific sections outlined within the latest IATF16949 manual.

Suppliers of products and materials must be approved according to the supplier approval process described below. The Supplier Quality Engineer, and the responsible Purchasing Manager from Michigan Rubber Products, shall coordinate the supplier approval process.

3.6.2. CANDIDATE SELECTION

The approval process begins when the Purchasing Department considers a new supplier for a new, or existing product or material. Suppliers are evaluated and selected based upon their ability to meet contract requirements, and their ability to meet Michigan Rubber Products Quality Requirements as outlined within this manual.

In selecting a potential supplier, the Michigan Rubber Products Purchasing Manager and Supplier Quality Engineer (SQE) may research and consider, but will not be limited to the following criteria:

a) Quality Records, and any Quality Awards received
b) On Time Delivery
c) Competitive Pricing
d) Depth in Technical Resources
e) Solid base of suppliers.
f) Appropriate capital spending program
g) Sound business practice
h) Continuous Improvement
i) Evidence of a Quality Operating System
j) PPM Trends

All newly selected suppliers will be added to the supply base as a "conditional" supplier (see Section 3.6.4.)

NOTE: For a supplier that has multiple locations, the approval of one location, does not signify approval of other locations. Each individual facility will be treated as though they are a new supplier, and thus must submit a PPAP for any transfer of product to an alternative location.

3.6.3. QUALITY SYSTEM ASSESSMENT

The next step in the process is the Self-Assessment Audit of the Supplier's Quality System. The Supplier must complete the audit and return within 15 working days. If applicable, the Supplier will submit either a copy of their ISO9001 or ISO/IATF16949 certification, and is responsible to send a copy of a renewed or updated certificate whenever one is received.

The Purchasing Manager and the SQE will evaluate the Self-Assessment Audit. If an On-Site Audit is either requested or required, the SQE will contact the supplier to arrange an on-site visit or audit at a mutually agreed date.

In addition, Michigan Rubber Products, can perform either an on-site Quality System Assessment, an on-site visit with "Gap-Analysis" on the supplier's Quality Operating System, or an initial visit on all suppliers. The time and date for such audit will be mutually agreed upon at the supplier's earliest convenience. For the purpose of clarification, a "Gap-Analysis" is utilized on a facility that is only ISO9001:2015 registered; therefore the audit would be to determine the "gap" between the existing quality system, and IATF16949 requirements. The SQE will coordinate the scheduling of an on-site visit/audit in advance with the supplier directly, when applicable.

The results of the survey, or on-site audit, will be reviewed with the supplier. For any nonconformance, the supplier will develop a planned "TIME-LINE" for corrective action, and submit said plan within two weeks of receipt of the results and submit to the SQE. Based on the nature of the nonconformance, the SQE will either verify the effectiveness of the corrective action via a return visit on-site, or via a supplier submission of documentation for review.

3.6.4. MICHIGAN RUBBER PRODUCTS APPROVAL PROCESS

Once the candidate supplier has successfully completed the Michigan Rubber Products Self-Assessment packet, and has met the conditions listed above, the Purchasing Manager and SQE will approve the supplier to be included on the Approved Supplier List.

3.6.5. SUPPLIER PERFORMANCE CLASSIFICATION RATINGS

Supplier performance will be monitored and documented using the Supplier Performance Rating System (SPRS), which was designed to meet the requirements of ISO/IATF16949. Once a supplier begins submitting production parts, materials or components, the supplier is added to the Supplier Performance Rating System (SPRS). The supplier classification rating will follow the criteria listed below.

Ideally all suppliers to Michigan Rubber Products Operations will strive to attain a "Preferred" classification. A supplier will be classified according to the following criteria:

A. ***"Preferred"***

Has maintained an SPRS rating of 95% or higher during the past 6 months.

B. ***"Approved"***

Has maintained an SPRS rating of 80% or higher during the past 6 months.

C. ***"Conditional"***

Is either a New Supplier or has maintained an SPRS rating of 65% or higher during the past 6 months.

3.6.6. SUPPLIER PERFORMANCE RATING SYSTEM (SPRS)

Michigan Rubber Products requires 100% on-time delivery from its suppliers, with defect-free products, as well as an immediate response to any defective material concerns that may arise. The manner in which this criterion is monitored is via the Supplier Performance Ratings System.

Michigan Rubber Products Quality Policy, and ISO/IATF16949, requires that our suppliers implement a Quality System that conforms to the Quality System Requirements of the ISO/IATF16949 manual and meet the intent of the requirements. If a current supplier in good standing does not have a Quality System that conforms to the requirements of ISO/IATF16949, an overview and time line of their program, and

the

implementation plan shall be submitted to the Supplier Quality Engineer for review and acceptance. An on-site audit or "gap-analysis" may be required to assess the supplier's ability to comply to the requirements.

The supplier further agrees to accept the requirements of the "Michigan Rubber Products Operations, Supplier Quality Assurance Manual," and that any other deviations required, be approved in writing by the Supplier Quality Engineer & the Purchasing Department.

Each supplier will be rated upon their ability to meet "Zero Defects", 100% On-Time Delivery, PPAP Submissions, Responsiveness to SCAR's with 8D, where applicable, and the supplier's presence of a Quality Operating System (QOS). Each of the rating categories, and related point scores are defined below. The categories and point value weights are as follows:

CATEGORY I. - PERFORMANCE RATING (90%)

PPM Rating	***25%***
Delivery Rating	***25%***
Response Rating	***20%***
PPAP Rating	***20%***

CATEGORY II. - ASSESSMENT RATING (Presently Not Used)

ASSESSMENT 1 – COST SAVINGS & COST DOWNS
ASSESSMENT 2 – SERVICE AND SUPPORT TO FACILITIES
ASSESSMENT 3 – SUPPLIER PARTNERING & DEVELOPMENT

CATEGORY III. – SURVEY (10%)

Score Rated Reflects QOS system in place as defined below

3.6.6.1 CATEGORY I:

The four evaluative areas are each weighted and combined to calculate a final score for this category, which comprises of 90% of your overall score at this time.

PPM RATING:
Michigan Rubber Products has chosen to calculate ACTUAL PPM. This method is calculated by the industry standard of 1,000,000 – (PPM Value), divided by 1,000,000. The result is then a value from 0 – 100. The calculation for the CURRENT PPM value, then, is as follows:

1,000,000 * Quantity Rejected/Volume of pieces shipped taken from Total Receipts.

DELIVERY RATING:
The Delivery Rating uses the positive and negative demerits assigned to vendors as issued by DPR's, when applicable. The number of different receipt dates in the specified monthly period is added to the total value of the demerits, then divided by the total number of receipt dates. If

there are no receipt dates and the vendor's total demerits are negative, the delivery rating will be set to zero.

Thus, Delivery Rating: {(Delivery Receipt Dates *100} + DPR Demerits) / (DRD *100) *100

RESPONSE RATING:
The total number of responses entered for SCAR's created within the time range is divided by the total number of SCAR's created for the vendor within a monthly period, and that total is multiplied by 100. The Response rating is based on the RESPONSE DUE DATE. If the Response date is less than or equal to the Due Date, the vendor receives credit for the response. However, if the Response is greater than the Response Due Date, or no Response is received, the result is 0 and no credit is given.

Thus, Response Rating: ({SCAR Responses/ SCAR's issued}) * 100

PPAP (Production Part Approval Process) Rating:

The PPAP rating is a total of all PPAP submissions with a Sample Status of F (Full Approval) or P (Provisional Approval), divided by the total number of all submissions (Full approval, Provisional and Rejected (R)). Where no PPAP's are due for submission, the score will remain at 100%, or the last value received from a previous submission.

3.6.6.2. ***CATEGORY II:***

This area is under re-development at this time, and actual criteria are not available, nor is the vendor being evaluated during this period. However, for future considerations, there are three Assessment sections of which the vendor will be evaluated. Each of the individual categories will be waited with a percentage, totaling 100%, and as a section, will represent a percent in the overall calculation. The scheme of calculations is:

Assessment Rating * Assessment Rating % Factor – the total overall score average will be the assessment category rating.

3.6.6.3. ***CATEGORY III:***

The Survey category is the reflection of the Quality Operating System (QOS) of the supplier. The points assigned are as listed below:

ISO9001 w/ IATF16949 Addendum	***100***
ISO9001, and is rated as IATF16949 compliant	***90***
ISO9001, but not rated as IATF16949 compliant	***75***
Non ISO/IATF facility, but is IATF16949 compliant	***65***
Non ISO/IATF facility, but has a Quality structure	***50***
Non ISO/IATF facility, no Quality system in place	***0***

3.6.7. MICHIGAN RUBBER PRODUCTS MERIT/DEMERIT PROGRAM

As mentioned previously, suppliers are rated "Conditional", "Approved" or "Preferred." Conditional suppliers are vulnerable to being replaced, without warning. Approved suppliers may be replaced after having the opportunity to re-bid the business. Preferred suppliers will only be replaced due to a severe change in our relationship, or because of a technology change.

Preferred suppliers will be given the first opportunity to quote new business or apply for opportunities that arise. In the interest of stronger customer-supplier relations, the suppliers will be advised in their semi-annual reviews of their vulnerability, if they maintain a rating of anything other than "Preferred."

3.6.7.1 Merits will be given for:

- technical assistance
- cost reduction efforts
- favorable payment terms
- marketingassistance
- emergency response
- ISO/IATF and other quality ratings.

3.6.7.2 Demerits will be given for:

- defective material
- late delivery
- over shipment
- packing list errors
- defective packaging
- delayed customer pick-ups
- certification errors
- confirmation errors
- poor response times
- wrong material
- early delivery
- under shipment
- labeling errors
- wrong packaging
- non-competitive pricing
- invoicing errors
- ineffective problem resolution
- no response to requests from SQE

Over the past years, Michigan Rubber Products has developed some very strong relationships with quality suppliers. SPRS is designed to monitor the performance of our suppliers to recognize quality performance, as well as to determine the supplier's weak areas, and thus, indicate where joint effort is required to bring the supplier into the "Preferred" category.

3.6.8 SCAR & DPR Handling.

3.6.8.1 SCAR - Defective Material Reject Ticket (DMRT)

At Michigan Rubber Products, a Defective Material Reject Ticket (DMRT) is referred to as a SCAR. In the event defective material/parts are received at Michigan Rubber Products, the supplier shall be contacted and an official SCAR will be issued and faxed to the customer service department or Quality Manager of

the supplier. In almost every instance, an 8D will be required; the prescribed format is defined within Section 3.13 of this manual, and a recommended 8D form copy is offered in Appendix A. To understand the methodology, see the flow chart in Appendix B. The receiving facility will contact the supplier and give the lot/batch number of the nonconforming product received. **Within 24 hours of that notification, the supplier is responsible to isolate and contain any product with the similar batch/lot number, and contact the Michigan Rubber Products receiving facility, indicating that they have contained and the quantity contained. The first portion of the 8D is due within the 24 hours.**

At that point, the supplier shall decide upon one of the following:

a) Send someone from the supplier's facility to immediately sort the parts/material and ensure nonconforming product/material has been removed.

b) Send immediate replacement product/parts and have Michigan Rubber Products return the entire shipment, at the supplier's expense, issuing our receiving facility an RMA number.

c) Authorize Michigan Rubber Products to sort product/parts, at supplier's expense, to assure continued production needs and arrange for credit and/or replacement parts.

d) Any combination of the above, if approved by the Michigan Rubber receiving facility. In most instances, an 8D is required, the supplier shall begin the action immediately and contact the Michigan Rubber Products Supplier Quality Engineer with complete information, and a copy of the 8D sent to the SQE at the appropriate intervals of completion. Reminder, to close out the SCAR, an updated FMEA and possible Control Plan are required. **Constant communication with the SQE is recommended**. Again, the proper format for the 8D is defined within Section 3.13 of this manual.

IMPORTANT NOTE: If material is being returned to the supplier for sorting and/or disposition, it is important that we receive the PPM figures for sorted product at supplier's facility, with the 8D, under the containment block.

3.6.8.2 DPR - Delivery Performance Report

The supplier should make every effort to deliver product/material at a "100% on-time" delivery mode. Michigan Rubber Products utilizes ASN's (Advance Shipment Notification) to coordinate anticipated delivery with production schedules. Realizing that some companies do not have ASN or EDI capability, in most cases a faxed copy of the shipping invoice is acceptable. The main point is that communication must be made with the Michigan Rubber Products receiving facility to confirm shipment. Additionally, in most cases, communication ahead of any problem can also relieve some demerits being issued. For example, if there is only going to be a partial shipment, or the product produced created complications and a delay is anticipated, the supplier should immediately contact the receiving facility to coordinate efforts. The advance communication will allow the receiving facility to plan production around that delay.

Delayed, late or incomplete shipment is not the only reason a DPR could be issued. A DPR could also be issued for missing packing slip, improper labeling, missing label, early or late delivery, and other delivery related issues.

Once a DPR is issued, the supplier needs to respond within 24 hours acknowledging the reason for the problem, how the problem will be resolved, and what will be done to correct and prevent any future reoccurrence. If there is a problem with the shipping date, then the supplier should discuss the possibility of an alternate date with the receiving facility. Once again, communication is extremely important.

3.6.8.3 RESPONSIVENESS SCORES

Within the Supplier Performance System, as defined further on, the supplier is evaluated on PPM, Delivery, PPAP, and Responsiveness standards. The important notation here is that the supplier must communicate initially within 24 hours to indicate containment (with SCAR's), and/or acknowledgment with anticipated corrections (DPR's). If a defective material/product is received at MPR, a SCAR will be issued, and points will be subtracted from the PPM score dependent upon nature and amount of defects received. If the supplier does NOT respond within 24 hours indicating the problem is contained, the supplier will also lose points with the Responsiveness category. The same applies to DPR's issued, thus, as indicated, communication with the receiving facility is imperative.

The final problem solving methodology for SCAR's, 8D's, and DPR's should be communicated to the Supplier Quality Engineer and the receiving facility; however, initial contact is made with the receiving facility.

3.7 MICHIGAN RUBBER PRODUCTS SUPPLIER DISTRIBUTORS

Regardless of the function performed, all suppliers must be able to show compliance to all of the above and below listed requirements. Supplier Distributors, or Sales Distributors of suppliers, are responsible for all the functions and quality programs of the supplier's they represent. Further, supplier distributors or sales distributors are responsible for those portions of ISO/IATF16949 that apply (I. e., contract review, material certifications, spc, etc.) When required from Michigan Rubber Products, the distributor is responsible to have that information on hand, or attain, and supply as requested.

There are basically three types of distributors. A surrogate sales group for a manufacturer; a repackaging facility; or a manufacturer/distributor. A surrogate sales group is one that takes the product from the manufacturer as is. The manufacturer has the responsibility for product quality since the distributor takes the package in its original condition. The distributor, however, is responsible for handling and storage while in the distributor's possession, and thus has a process that requires some form of control.

The repackaging facility receives the product in large quantities and repackages the product to sell in the customer's desired quantities. In this instance, both the distributor and the manufacturer work together to assure quality. The Manufacturer/Distributor is similar to the re-packager with the exception that the manufacturer/distributor produces a new product when adding or combining other ingredients.

A distributor supplier program has five basic components:

1) Manufacturer Audit system.
2) Shipping/Packaging Control System
3) Storage Control System
4) Specification Program
5) Quality Information System

The Audit system is a system of assessing the quality program at the supplier's facility; to evaluate, document, and ensure the product is produced at the quality level their customer requires. Shipping/ Packaging control system is a method of ensuring traceability and lot integrity, and that quality is not compromised in the repackaging operation. Storage control ensures that the product maintains the quality required while in the distributor's possession. The specification program is the maintenance of up-to-date specifications and documents. The Quality Information system maintains information from the supplier on the user's most requested quality characteristics.

Distributors may be evaluated on the technical support and service they provide. The level of satisfaction with a distributor is related, but not limited to, the quality of the response and the time taken to respond.

3.8 OTHER SUPPLIER REQUIREMENTS

The supplier shall be responsible for establishing and maintaining an effective Quality Operating System for the control of quality that will ensure compliance with all Michigan Rubber Products contractual requirements. The Quality Operating System will demonstrate adequate documentation to ensure the control of quality in all phases of product production performance and shall provide for the prevention of nonconformance's, defects, contamination of parts, product and/or materials being supplied to MRP.

The supplier shall make available at their facility, trained and knowledgeable personnel for all defined areas of responsibility that affect product quality. Advance Product Quality Planning must be a vital function of the supplier's ongoing activities. Team Oriented Problem Solving methodologies, and the use of cross-functional team approach is strongly recommended.

3.8.1 DIVERSITY & MINORITY SUPPLIERS

Michigan Rubber Products actively encourages the use of, but not limited to, Minority, Women and Disabled-Veteran Business Enterprises through our company-wide Supplier Diversity Program, and is thus committed to the development and support of a diverse supplier base. Our primary focus is on the development and inclusion of all capable material and service suppliers with only one thought in mind – our objective is to identify the most qualified suppliers capable of meeting our price, quality and delivery requirements.

3.8.2 HEALTH & SAFETY POLICY STATEMENT

Michigan Rubber Products is committed to ensuring that the health and safety risks of our shareholders, employees and contractors which arise from its operations are reduced as far as is reasonably practicable. We therefore require that our suppliers conduct their operations in a safe and healthy manner in line with relevant regulations, approved codes of practice and industry best practices in a manner that does not expose any person to the risk of injury or ill health. Additionally, our chosen contractors and/or suppliers are expected to demonstrate a clear commitment to Health and Safety Management, and in so doing, that they maintain effective policies and procedures thereof. The supplier must have a current Health and Safety policy statement that is signed and dated by a senior official of the organization, and a copy provided upon request.

3.8.3 SUPPLIER CODE OF CONDUCT

Michigan Rubber Products is committed to ethical business practices and therefore hold our suppliers to the same high standards. It is MRP's policy to comply with all applicable laws and regulations of the countries and regions in which we operate, and to further conduct our business activities in an honest and ethical manner. Our Michigan Rubber Products Code of Conduct expects its suppliers to uphold the policies of MRP concerning compliance with all applicable law, respect for human rights, environmental conservation, and the safety of products and services. We therefore expect our suppliers to conduct their business in a socially responsible manner and that their business operations are environmentally responsible and conducted ethically.

MRP also expects their suppliers to provide a safe and healthy work environment for their employees, and that workers are treated with respect and dignity. Suppliers are to uphold the human rights of workers regardless of whether they are full-time, temporary, migrant, student, contract, or any other type of worker employed at their organization. These labor standards are:

1. Employees have freely chosen employment there.
2. Child labor is not to be used in any stage of manufacturing.
3. Work weeks are not to exceed the maximum set by local law.
4. Wages shall comply with all applicable wage laws, including those relating to minim wages, overtime hours and legally mandated benefits.
5. There is no harsh or inhumane treatment to include sexual harassment, sexual abuse, corporal punishment, mental or physical coercion, or verbal abuse of workers.
6. There is to be no harassment and unlawful discrimination based on race, color, age, gender, sexual orientation, ethnicity, disability, pregnancy, religion, political affiliation, union membership or marital status in the hiring and employment practices such as promotions, rewards, and access to training.

3.9 CONTROLLING MANUFACTURING PROCESS/PRODUCT TRACEABILITY

Lot traceability of the raw material, work in-process, and finished materials used by a supplier furnishing goods and services to MPR must be identified from receipt at the supplier's facility through delivery to Michigan Rubber Products. All raw materials used or purchased by the supplier in the fabrication of products shall conform to the contractual specifications. Evidence of this conformance will be maintained by the supplier, and made available upon request.

All finished goods and products shipped to any of MPR's end user(s), must meet Michigan Rubber Products quality specifications. Labeling and packaging specifications must be met by our suppliers, as stated in the purchase order packet as applicable. Any deficiencies in meeting these specifications will be noted and placed within the supplier's file, and factored into their SPRS Rating.

MPR approval must be obtained before any changes are made to the Part, Material, Tooling or Process Controls, and/or any other changes that would alter the final product to us.

Special processes are those processes that cannot be adequately evaluated for conformance to specifications through inspection and non-destructive testing alone. These include, but are not limited to operations such as chemical formulation and processing, heat-treating, plating, etc. Regardless, the

supplier must demonstrate control over these processes consistent with the evidence of assurance that compliance to the specifications is being accomplished. There shall be written procedures governing these and other controls, and competent personnel implementing them.

The Supplier is required to be able to document his quality system and quality performance. The Supplier must maintain adequate records of all inspections and tests performed, particularly those stated within the control plans.

The Supplier is responsible to retain Quality System Records as required for the time periods specified in ISO/IATF16949.

3.9.1. INSPECTION & PRODUCT MONITORING

The supplier shall provide and maintain written evidence of inspection and test instructions to supplement drawings and specifications. These instructions shall be kept current and available at all locations where they would be utilized.

All parts and materials supplied to Michigan Rubber Products must be subjected to inspection and testing on a frequency which will be adequate to ensure conformance to the engineering drawings, part or product specifications, and standards; and further to ensure that no nonconforming product/material reaches MPR. Suppliers should utilize data from control charts and other statistical techniques to provide a product that meets all contractual specifications. In addition, these statistical techniques should be utilized to pursue opportunities for continuous improvement and reducing variation in process, thus preventing defects or rework, and for improving productivity.

The supplier is expected to use Statistical Process Control methods (SPC) to control and evaluate process variation and verify continuous improvement efforts. Where requested, the supplier shall be expected to submit evidence of SPC on all significant characteristics specified on MRP supplied product prints and specifications.

3.9.2 BYPASS MANAGEMENT

The supplier shall have a process to identify and review manufacturing processes and error proofing devices that can be bypassed. The supplier shall identify manufacturing processes and error proofing devices which can be bypassed. Risk Priority Number (RPN) for all approved Bypass processes are to be evaluated and risks reviewed. Any process whereas a bypass has been put in place that was not part of the original process, the supplier must notify MRP in writing immediately with explanation and gain approval for this from MRP.

Standard work instructions are to be available for each bypass process. Any implemented bypasses are to be reviewed in daily Management Leadership Meeting with the goal to reduce or eliminate bypassed operations. Processes/devices in bypass must have a quality focused audit performed. Restart verification must be done at 100% for all features until it has been confirmed the process is back to normal. This verification must be qualified and documented, again notifying MRP of the return to normal process.

3.10 INCOMING MATERIAL QUALITY

The supplier is responsible for ensuring that all material obtained from outside sources for use in products supplied to MPR, conform to all specified requirements. That being stated, the supplier should have a system in place to monitor and develop their suppliers; however, regardless, the supplier to MRP is responsible for the quality of incoming raw materials and products to their facility and therefore must ensure that no defective or non-conforming products from their suppliers reach MRP.

If the supplier is a distributor, that supplier is responsible for adhering to all requirements listed here within. In addition to quality assurance surveys at the supplier's production facilities, the supplier may use the below methods to ensure receipt of conforming subcontracted materials:

a) By the supplier furnishing satisfactory inspection and test results at adequate frequencies to ensure compliance to specifications.
b) By performing incoming inspections and tests at adequate frequencies to ensure compliance to specifications.
c) By utilizing the analytical services of approved outside test laboratories that are ISO17025 certified.
d) By the supplier furnishing statistical evidence of control and capability for significant characteristic.

3.11. MEASURING SYSTEMS EQUIPMENT

The supplier must provide and maintain adequate gages and other measuring/test equipment in sufficient quantity required to ensure continued measurement and accuracy, and quality product management. Gages and other measuring equipment must be calibrated and updated to reflect engineering changes. The supplier must, to the extent necessary and practical, maintain and conform to a written schedule for maintenance and calibration of such equipment. The calibration must be by certified lab certified to ISO17025.

3.11.1 GAGE MEASUREMENT REVIEW

With all PPAP submissions, or upon request from Michigan Rubber Products, the supplier shall supply a Gage R&R on measuring equipment used to monitor product capability performance. The guidelines set forth by the AIAG Measurement Systems Analysis shall apply. Gage R&R acceptability standards are:

Gage R&R Error %	Acceptability
Less than 10%	Acceptable Measurement System
10% - 30%	May be acceptable based on importance of the application.
Over 30%	considered not acceptable - every effort should be made to improve the measurement system.

Note: if over 30%, Gage R&R must be redone and re-submitted.

3.12 DEFECTS OR NONCONFORMING MATERIALS

Whenever a SCAR is issued to a supplier, an 8D is required. The steps are highlighted on the SCAR, and MPR requires responses to those steps as progress is initiated. Please do not wait until the entire process is complete before responding. Responses should be faxed to the receiving facility at various stages, until the entire 8D is completed and ready for final submission. The receiving facility needs to be contacted within 24 hours of notification to you, that the product has been contained, and be assured that no other product from that lot will be shipped.

In the event another shipment is enroute, we need to be aware to quarantine at our receiving facility. If information is not properly communicated within a 24 hour period, then responsiveness demerits will be issued. The receiving facility also needs to be informed of the product sorted in-house/returned, and the amount of defects found during your review.

3.12.1 SEGREGATION OR QUARANTINE CONTROL

The supplier shall have an effective system for containment and quarantine, or segregation, of any and all nonconforming or "suspect" materials, and shall display that on their control plans. The system shall positively identify and divert from normal production channels, any material not conforming to specifications, and the method of prevention from being used in production or shipment to a customer.

In the event that nonconforming material has been shipped to Michigan Rubber Products the supplier must contact the Supplier Quality Engineer or the Quality Technician (receiving) immediately, describing the nature and extent of the problem of any material received by MRP. Should the discrepancy be of a minor nature, either after discovered shipment or prior to anticipated shipment, the supplier will contact the Supplier Quality Engineer to obtain a possible deviation.

Should a deviation be required, a corrective action plan must accompany the request. If a deviation is authorized, the supplier shall identify the material manufactured and/or shipped under deviation with the deviation number on the outside of the shipping container and the bill of lading, and further, that ***ALL cartons MUST be appropriately tagged to identify a deviation product.***

3.12.2 REJECTED/DEFECTIVE PARTS/MATERIAL

Michigan Rubber Products acceptance criteria are zero defects, or zero PPM. The supplier should be striving to reach the goal of 20 PPM at the interim, with an overall goal of 0 PPM. **IMPORTANT:** If nonconforming material is found at Michigan Rubber Products, the following actions will take place:

a) A SCAR (Defective Material Reject Ticket) will be issued and the supplier will be contacted. The Supplier is expected to identify and contain the suspect material and respond to the MRP facility within 24 hours.

b) Once notification has been received at the supplier's facility, an 8D is required. Therefore, the supplier is to initiate the 8D process, and investigate to determine root cause, corrective action, and permanent prevention of reoccurrence. **IMPORTANT:** It is

vital that this task be carried out and communication with the facility is maintained indicating progress made to date.

c) The supplier will also be contacted to disposition the defective, or "suspect" material/product to determine if the product is to be returned to the supplier for inspection/sort or corrective rework.

d) If the product received is expected to be used for production immediately, the supplier must determine if they are going to immediately air ship new product to the facility; send someone in to immediately sort the product; or allow the material to be sorted and/or corrected at the Michigan Rubber Products facility, at the supplier's expense.

Whatever the situation, communication and feedback to Michigan Rubber Products is vital. Failure to communicate and respond will result in demerits issued against your rating on the SPRS program, and could result in the loss of a "preferred" or "approved" status.

If the material is to be returned to the supplier, the cost of transportation will be the supplier's responsibility. If the material must be sorted or reworked at Michigan Rubber Products, the cost of this work will be debited to the supplier. In almost all cases, MRP will contact the supplier before sorting/rework commences. However, in the case of a "no-choice" situation in order to meet the production requirements of our customer, rework may be required without prior consent of the supplier.

Individual parts that are discovered to be defective during processing at MRP will be subject to return to the supplier for credit and/or scrapped at the plant with permission from the supplier.

3.13 CORRECTIVE & PREVENTATIVE ACTION

The supplier shall initiate corrective action for any and all nonconforming product or material. The corrective action procedure will include utilization of the Team Oriented Problem Solving (TOPS) methodology utilizing the "8-Discipline Problem Solving" (8D) approach. As each step is completed, a copy must be sent to the MRP SQE. If anything is altered within the actual process or production specifics, it will also require an amendment to the Control Plans/FMEA, and thus, a new PPAP must be submitted. The 8-D Problem Solving Approach (a copy of the form and format is available in Appendix A) is as follows:

1) Utilize the Team Approach - Organize a cross-functional group of people with the process/ product knowledge, allocated time, authority, and skill in the required technical disciplines to solve the problem and implement corrective actions.

2) Problem Description - Specify the internal/external problem by identifying in quantifiable terms of the who, what, where, why, how, and how many/often for the problem.

3) Interim Corrective Action - Define and implement **containment** action to isolate the effect of the problem from any internal/external customer until corrective action is implemented. Verify the effectiveness of this containment action.

4) Root Cause - Identify all potential causes which could explain why the problem occurred. Isolate and verify the root cause by testing each potential cause against the problem description and test data. Identify alternative corrective actions to eliminate root causes.

5) Permanent Corrective Action - Define and verify the best permanent solution or corrective action to prevent reoccurrence. Establish the effectiveness of the potential action(s).

6) Implement Permanent Corrective Action - Define selected permanent corrective action and outline the implementation, to include dates and responsibilities.

7) Recurrence Prevention - Define the modifications made to the management systems, operating systems, practices and procedures to prevent reoccurrence of this and any similar problem(s). Establish the implementation date.

8) Congratulate Your Team - Recognize the collective efforts of the team in the identification and resolution of the problem.

3.14 STATISTICAL PROCESS CONTROL

Many suppliers have reduced costs through the implementation of Statistical Process Control (SPC). The techniques are relatively easy to utilize and place much of the responsibility on the individual worker. The main function of SPC is to prevent poor quality from occurring by controlling the process. .

Suppliers are required to use statistical methods for the control and continuous improvement of significant product/process characteristics. Statistical process control should be effectively implemented to deal with assignable causes. The use of statistical problem-solving methods, such as Design of Experiments, is encouraged for reduction of variation due to common causes.

Suppliers are required to use statistical methods to evaluate and control the variability of any and all manufacturing processes including the variability of individual manufacturing equipment, which may include rework/repair operations. Some of the significant product and process characteristics may require statistical capability studies. These capability assessments can only be determined for stable processes operating under production conditions.

Suppliers are required to evaluate process capability on a regularly scheduled basis and must resubmit a revised control plan whenever a major change in the manufacturing process occurs. If it is determined that a process is not statistically capable, or a process has changed from a capable to a non-capable status, the supplier is expected to determine the cause of variation and take corrective action immediately to return the process to a controlled condition. The supplier is further expected to notify Michigan Rubber Products immediately and have a reaction plan in place to contain the suspect product within 24 hours, and to be able to identify all suspect lots, and disposition material produced during this period.

3.15 AIAG INFORMATION

A. The AIAG offers QS-9000 training and materials, manuals, CD Rom of all necessary document forms and instructions to comply to, from the address listed below:

Automotive Industry Action Group
2620 Lahser Road
Suite 200
Southfield, Michigan 48034
Phone: (248) 358-3570

B. AIAG Reference Manuals:

Quality System Requirements
(ISO/IATF16949) Quality System
Assessment (QSA) Production Part Approval
Process (PPAP)
Advanced Product Quality Planning and Control Plan (APQP)
Potential Failure Mode and Effective Analysis (FMEA)
Fundamental Statistical Process Control (SPC)
Measurement System Analysis Manual (MSA)

SECTION - 4 MICHIGAN RUBBER PRODUCTS - QUALITY SYSTEM ASSESSMENT

4.1.1. PURPOSE OF THE QSA

The Quality System Assessment (QSA) is used to determine the level of conformance to the Quality System Requirements of ISO9001/IATF16949. Proper use of the QSA will promote consistency between activities and personnel determining ISO/IATF16949 conformance.

4.1.2. APPLICATIONS

The QSA may be used in several different ways according to the needs of the customer and supplier:

- By a supplier as a self-assessment of its own system (first party)
- By a customer to assess a supplier's operations (second party), including use by first tier suppliers with lower tier suppliers
- By a quality systems registrar (third party) as input to an audit checklist
- By a customer to audit a potential supplier prior to awarding a contract.

4.2.1. APPLICABILITY

Present Michigan Rubber Products suppliers, and potential new suppliers, who do not possess a registration to ISO9001/TS16949, must perform a QSA audit on their facility initially, and thereafter every two years while conducting business with MRP. Official AIAG QSA booklet can be obtained from the AIAG, as listed on page 24 of this manual. The supplier performing a Quality Self-Assessment is not relieved from receiving a QSA audit on-site by the Michigan Rubber Products SQE.

A potential new supplier will be assessed by the MRP audit team generally prior to beginning production. Present suppliers to MRP are being reviewed to determine their compliance to ISO/IATF16949 requirements. The criteria for auditing is given below:

If the supplier is a ISO9001/IATF16949 registered facility, only an on-site visit will be required, to review the control plan and production process. If the supplier is an ISO9001 only facility, a “gap-analysis” audit will be performed to determine the level of conformance to TS16949, and adjustments to be made thereof. If a supplier is neither ISO9001 or ISO/IATF16949 registered, a complete QSA audit must be performed to determine what the supplier is lacking to comply with IATF16949 requirements, and the resultant actions necessary by the supplier to meet compliance.

4.3.1 ASSESSMENT METHOD

The assessment method is composed of three major phases.

1. Quality System Documentation Review
   This review determines if the quality manual (and supporting documentation as required) meets all the requirements of IATF16949.

2. On-site Audit
   This phase determines the degree and effectiveness of the implementation of the quality system at the supplier's manufacturing and support locations.

3. Analysis and Report
   A review of the findings of the first two phases is used to determine supplier conformance to ISO/IATF16949 requirements.

4.4.1. METHOD OF AUDIT SCORING

Michigan Rubber Products will utilize a numerical grade per element question, and a percentage score to determine audit findings, and level of conformance based on the criteria listed below.

4.4.2. ELEMENT SCORING

A numerical score rating from 0 to 3 will be assigned as an evaluation of conformance to each of the element questions as follows:

0 - Supplier does not conform to elemental question in either practice or written procedure. Supplier has no objective evidence of conformance to the requirement.

1 - Supplier mildly complies by either having a written procedure, but practice is not yet implemented; may have practice implemented, but no written procedure or documentation; or lacks objective evidence to ensure conformance.

2 - Supplier conforms to a degree in practice and written procedures, but has a need to strengthen conformance; or has areas of opportunity for improvement to assure compliance; may lack substantial objective evidence of compliance.

3 - Supplier conforms to the element in both practice and written procedure. There is objective evidence to ensure compliance.

4.4.3. AUDIT SUMMARY SCORING

When the SQE completes the QSA audit, the total of each element will be tabulated and the resultant score will be placed on an Audit Documentation Summary Sheet. The final percentage is calculated simply by dividing the total score achieved by the maximum possible score. To successfully pass an Michigan Rubber Products QSA audit, the supplier must:

1. Have a minimum passing score of 85%, with no “zero” scores on any element.

2. Not have a Major nonconformance written against them.

3. Not have a Minor nonconformance written against them.

In the event a minor or major nonconformance is written against the supplier, a Corrective Action

Report (CAR) will be issued and a time limit allowed to comply. Once the supplier makes the corrective action and submits the corrective action to the SQE for evaluation. The SQE will review the returned CAR, and if the actions taken are satisfactory, will clear the CAR and adjust the score on the audit. At the point that the audit has been declared a "Pass" the SQE will issue a letter indicating the supplier has been found to be compliant to the requirements of ISO/IATF16949.

4.4.4 SUPPLIER 3RD PARTY AUDITS

Whenever a supplier has received a major finding on their 3rd party audit or ISO/IATF 16949 recertification audit, they are to notify Michigan Rubber Products immediately with the major finding received, corrective action and anticipated date of correction, along with the date the major finding was cleared at their facility.

4.4.5 AIAG CQI – CONTINUOUS QUALITY IMPROVEMENT

CQI is an approach to quality management that builds upon traditional quality assurance methods by emphasizing the organization and its systems: if focuses on "process" rather than the individual; it recognizes both internal and external "customers"; it promotes the need for objective data to analyze and improve all systems and processes.

Michigan Rubber Products, as a Tier One Automotive Supplier, has recognized the need for adopting CQI methodologies in both our internal practices, and external relationships with our suppliers. Therefore, it is strongly recommended that all suppliers of MRP, adopt the same principles within their organization and thus commit to continuous improvement in their processes and systems in order to provide the best practices model for business, to deliver the best quality to their customers, and to encourage their suppliers to follow those principles and practices as well.

4.4.6. TERM DEFINITIONS

In support of continuous improvement, the auditor should identify quality system strengths, weaknesses and opportunities for improvement.

A ***MAJOR NONCONFORMITY*** is either:

- The absence or total breakdown of a system to meet a IATF16949 requirement. A number of minor nonconformities against one requirement can represent a total breakdown of the system and thus be considered a major nonconformity.
- Any noncompliance that would result in the probable shipment of a nonconforming product. A condition that may result in the failure or materially reduce the usability of the products or services for their intended purpose.
- A noncompliance that judgment and experience indicate is likely either to result in the failure of the quality system or to materially reduce its ability to assure controlled processes and products.

A ***MINOR NONCONFORMITY*** is a IATF16949 noncompliance in that judgment and experience indicate is not likely to result in the failure of the quality system or reduce its ability to assure controlled processes products. It may be either:

- A failure in some part of the supplier's documented quality system relative to IATF16949 or
- A single observed lapse in following one item of a company's quality system.

OPPORTUNITY FOR IMPROVEMENT is a recommendation from the SQE to improve upon in order to more completely comply with the requirement, or may improve application to the element.

CONFORMS indicates that no major or minor nonconformities were noted in the audit.

ADEQUACY as used in this document means that the specific supplier documentation meets IATF16949 intent given the scope of the supplier's operations.

PPM is a quality performance measure as parts per million derived from the number of defective parts received vs. the total parts supplied.

Trending is a term of utilizing key measurables to track manufacturing/facility performance. Trending should include such items as scrap levels, PPM nonconformance levels, on-time delivery, cycle times, productivity or efficiency ratings, etc. Graphing these with goal and trend is the preferable method.

SECTION - 5 ADDITIONAL REQUIREMENTS

Appendix A: Michigan Rubber Products - 8D Supplier Corrective Action Report

Michigan Rubber Products
A Zhongding Sealing Parts (USA) Inc. Company

SUPPLIER CORRECTIVE ACTION REQUEST (S.C.A.R.)

Report Date: _____ Initiated By: _____

Supplier _____ Contact: _____

MRP P/N: _____ Packing Slip No.: _____

Shipment received

Concern:

Concern:

- ☐ Labeled Incorrect As: _____ Should Be: _____
- ☐ Quantity Incorrect _____ Should Be: _____
- ☐ No ASN for Receipt
- ☐ PPAP Package Missing
- ☐ Late Shipment
- ☐ Early Shipment
- ☐ Under Shipment
- ☐ Defect Type _____
- ☐ Over Shipment
- ☐ Line Interuption
- ☐ Other
- ☐ Corrective Action Report Required Report Due Date: _____

Action:

Root Cause: _____

Containment: (If applicable) _____

Short Term Fix: _____

Permanent Fix: _____

Implementation Date: _____

Person responsible: _____

Title: _____

Approved: ☐ By: _____ Date: _____

Rejected: ☐ By: _____ Date: _____

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Appendix B: SUPPLIER 8D RESPONSE PROCESS