BRC Rubber & Plastics, Inc

1029 A West State Blvd.
Ft Wayne, Indiana 46808

QUALITY MANAGEMENT SYSTEM

POLICY MANUAL

Based on:
ISO 9001:2015 AND IATF 16949:2016

Authorized By:

Randy Shepherd

VP of Quality

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Section 1.0 Introduction and Scope

1.1 General

BRC Rubber & Plastics, Inc. Hartford City, Churubusco and Bluffton divisions are manufacturers of molded and assembled rubber components, including rubber to metal and rubber to plastic bonding with support locations at Auburn Hills, MI and Fort Wayne, IN. Customer specific requirements include those for Ford, General Motors and Stellantis (formerly FCA). BRC does take exception to product design.

BRC is located at the following locations:

Bluffton Division
810 West Lancaster Street
P. O. Box 255
Bluffton, IN 46714
Phone 260/824-4501
Fax 260/824-5487

Churubusco Division
589 South Main Street
P. O. Box 227
Churubusco, IN 46723
Phone 260/693-2171
Fax 260/693-6511

Hartford City Division
1133 Gilkey Avenue
P.O Box 611
Hartford City, IN 47348
Phone 765/348-4800
Fax 765/348-4811

Ligonier Division
1497 Gerber St
P.O Box 71
Ligonier, IN 46767
260/894-4121
Fax 260/894-7263

Montpelier Division
623 West Monroe Street
P. O. Box 145
Montpelier, IN 47359
Phone 765/728-8510
Fax 765/728-8513

Detroit Sales Office
1091 Center Road
Suite 210
Auburn Hills MI 48326
Phone 248/745-9200
Fax 248-745-8857

Corporate Headquarters
1029 A West State Blvd.
Ft Wayne, Indiana 46808
Phone: 260/203/5300
Fax: 260/693/6511

General questions about ISO 9001 or IATF 16949 certification and the quality management system should be directed to VP of Quality at the corporate office.

ISO 9001 applies to Ligioner.

IATF 16949: applies to the Bluffton, Churubusco, Hartford City and Montpelier Divisions with Ft Wayne and Auburn Hills as remote support sites.

The policy manual represents a general description of the BRC quality management system. The manual is based upon the requirements of ISO 9001, IATF 16949, and where applicable, customer specified requirements. The structure of the manual follows the IATF 16949 quality management system model. It defines BRC policies, principles and commitment to quality responsibility in all facets of the organization.

- throughout the quality management system manual there are references made to supporting procedures. These documented procedures define in greater detail
  carried out.
- the procedures also identify records that are created and maintained.

It may not be copied, reproduced or electronically stored and edited by anyone without the written approval of the BRC VP of Quality.

Controlled copies of this manual are maintained and accessible to all employees of the company. Distribution of controlled copies is the responsibility of the VP of Quality. Only controlled copy is in Plex Document Control the title page contains the signature of the VP of Quality and the revision level in the Table of Contents matches the master copy. The Master Copy of this document is electronically stored in plex, which is backed up regularly. When changes to this manual are made, notifications are sent out notifying affected management groups.

The BRC Policy Manual is for all BRC locations.
ISO 9001 requirements apply to the BRC Ligonier Division.
The entire Policy Manual applies to BRC Bluffton, BRC Churubusco, BRC Hartford City and BRC Montpelier Divisions.

- how, when and by whom the BRC policies, principles and commitment are

1.2 IATF 16949 Exclusions

The Quality Management System is modeled after the IATF 16949 standard and ISO 9001 specification. The QMS at BRC excludes design of product. BRC does participate and assist our customers in their design activities.

2.0 Normative References

Annex A (Control Plan) is a normative part of this Automotive QMS standard.
Annex B (Bibligraphy-automtove supplemental) is informative, which provides additional information intended to assist the understanding or use of the Automotive QMS standard.

3.0 Terms and definitions for automotive industry

- **Accessory part**

Customer specified additional components that are either mechanically or electronically connected to the vehicle or powertrain before (or after) delivery to the final customer (e.g. custom floor mats, truck bed liners, wheel covers, sound systems enhancements, sunroofs, spoilers,super-chargers,etc)

- **Advanced quality planning (APQP)**

Product quality planning process that supports development of a product or service that will satisfy customer requirements; APQP serves as a guide in the development process and also a standard way to share results between organizations and their customers; APQP covers design robustness, design testing and specification compliance, production process design, quality inspection standards, process capability, production capacity, product packaging, product testing and operator training plan, among other items.

- **Aftermarket part**

Replacement parts not procured or released by an OEM for service part applications, which may or may not be produced to original equipment specification.

- **Authorization**

Documented permission for a person (s) specifying rights and responsibilities related to giving or denying permissions or sanctions within an organization.

- **Challenge (master) part**

Part(s) of known specification, calibration and traceable to standards, with expected results (pass or fail) that are used to validate the functionality of an error-proof device or check fixture (e.g. go/no-go gauging)

- **Control Plan**

Documented description of a the systems and processes required for controlling the manufacturing of product (see Annex A)

- **Customer requirements (CSRs)**

All requirements specified by the customer (e.g. technical, commercial, product and manufacturing process – related requirements, general terms and conditions, customer specific requirements etc.)

- **Design for assembly (DFA)**

Process by which products are designed with ease of assembly considerations.
(e.g., if a contains fewer parts it will take less time to assemble, thereby reducing assembly costs)

- **Design for manufacturing (DFM)**

Integration of product design and process planning to design a product that is easily and economically manufactured.

- **Design for manufacturing and assembly (DFMA)**

Combination of two methodologies: Design for Manufacture (DFM), which is the process of optimizing the design to be easier to produce, have higher throughput, and improved quality, and design for assembly (DFA), which is the optimization of the design to reduce risk of error, lowering costs and making it easier to assemble.

- **Design for six sigma (DFSS)**

Systematic methodology, tools, and techniques with the aim of being a robust design of products or processes that meets customer expectations and can be produced at a six sigma quality level.

- **Design-responsible organization**

Organization with authority to establish a new, or change an existing, product specification.

- **Error proofing**

Product and manufacturing process design and development to prevent manufacture of nonconformity products.

- **Escalation process**

Process used to highlight or flag certain issues within an organization so that the appropriate personnel can respond to these situations and monitor the resolutions.

- **Fault tree analysis (FTA)**

Deductive failure analysis methodology in which an undesired state of a system is analyzed; fault tree analysis maps the relationship between faults, subsystems, and redundant design elements by creating a logic diagram of the overall system.

- **Laboratory**

Facility for inspection, test, or calibration that may include but is not limited to the following; chemical, metallurgical, dimensional, physical, electrical, or reliability testing.

- **Laboratory scope**

Controlled document containing
specific test, evaluations, and calibrations that a laboratory is qualified to perform;
a list of the equipment that the laboratory uses to perform the above; and
a list of methods and standards to which the laboratory performs the above

- **Manufacturing**

Process of making or fabricating production materials; production parts or service parts assemblies; or heat treating, welding, painting, plating or other finishing services

- **Manufacturing feasibility**

An analysis and evaluation of a proposed project to determine if it is technically feasible to manufacture the product to meet customer requirements. This includes but it not limited to the following (as applicable): within the estimated costs, and if the necessary resources, facilities, tooling, capacity, software, and personnel with required skills, including support functions, are or are planned to be available.

- **Manufacturing services**

Companies that test, manufacture, distribute, and provide repair services for components and assemblies.

- **Multi-disciplinary approach**

Method to capture input from all interested parties and who may influence how a process is administered by a team whose members include personnel from the organization and may include customer and supplier representatives; team members may be internal or external to the organization; either existing teams or ad hoc teams may be used as
circumstances warrant; input to the team may include both organization and customer inputs.

- **No trouble found (NTF)**

Designation applied to a part replaced during a service event that, when analyzed by the vehicle or parts manufacturer, meets all the requirements of a “good” (also referred to as “No Fault Found” or “Trouble Not Found”)

- **Outsourced process**

Portion of an organization’s function (or processes) that is performed by an external Organization.

- **Periodic overhaul**

Maintenance methodology to prevent a major unplanned breakdown where, based on fault or interruption history, a piece of equipment, or subsystem of the equipment, is proactively taken out of service and disassembled, repaired, parts replaced, reassembled and then returned to service.

- **Predictive maintenance**

An approach and set of techniques to evaluate the condition of in-service equipment by performing periodic or continuous monitoring of equipment conditions, in order to predict when maintenance should be performed.

- **Premium freight**

Extra cost or charges incurred in addition to contracted delivery.
Note: This can be caused by method, quantity, unscheduled or late deliveries, etc.

- **Preventive maintenance**

Planned activities at regular intervals, (time-based, periodic inspection, and overhaul) to eliminate causes of equipment failure and unscheduled interruptions to production, as an output of the manufacturing process design.

- **Product**

Applies to any intended output resulting from the product realization process.

- **Product Safety**

Standards relating to the design and manufacturing of products to ensure they do not represent harm or hazards to customers.

- **Production shut down**

Condition where manufacturing processes are idle; time span may be a few hours to a few months.

- **Reaction plan**

Action or series of steps prescribed in a control plan in the event abnormal or nonconforming events are detected.

- **Remote location**

Location that supports manufacturing sites and at which non-production processes occur.

- **Service Part**

Replacement part(s) manufactured to OEM specifications that are procured or released by the OEM for service part applications, including remanufactured parts.

- **Site**

Location at which value-added manufacturing processes occur.

- **Special characteristics**

Classification of a product characteristic or manufacturing process parameter that can affect safety or compliance with regulations, fit, function, performance, requirements, or subsequent processing of product.

- **Special status**

Notification of a customer-identified classification assigned to an organization where one or more customer requirements are not being satisfied due to a significant quality or delivery issue.

- **Support function**

Non-production activity (conducted on site or at a remote location) that supports one (or more) manufacturing sites of the same organization.

- **Total productive maintenance**

A system of maintaining and improving the integrity of production and quality systems

through machines, equipment, processes, and employees that add value to the organization.

- **Trade-off curves**

Tool to understand and communicate the relationship of various design characteristics of a product to each other's product's performance on one characteristic is mapped on the Y-axis and another on the x-axis, then a curve is plotted to illustrate product performance relative to the two characteristics.

- **Trade-off process**

Methodology of developing and using trade off curves for products and their performance characteristics that establish the customer, technical, and economic relationship between design alternatives.

3.0 Quality Policy and Objectives

The following Quality Policy statement is the focal point of the BRC quality management system:

> ***" BRC Rubber & Plastics, Inc. is dedicated to Customer Satisfaction by providing Quality Products in a Timely Manner through Teamwork and a Commitment to Continual Improvement."***

This statement reflects BRC's commitment to serving the needs of its customers. The policies contained in this manual serve to instruct and guide associates whose actions affect product quality and to inform the organization's customers of the controls that are implemented to assure product quality.

In support of this policy, each associate is empowered to take action necessary to ensure that customer requirements and legal requirements are met. This may include stopping production until quality issues are resolved. It is also the responsibility of each associate to adhere to the requirements of this quality management system and, when possible, suggest improvements.

To confirm the effectiveness of the quality management system, BRC Rubber & Plastics, Inc. has developed the following quality objectives. Specific targets will be defined, documented and communicated by management. By monitoring the company's performance toward attaining these targets, management can determine the effectiveness of this quality management system.

BRC quality management system objectives for quality are to:

…strive to be the supplier of choice for BRC customers.
(External PPM, customer quality concerns, on-time PPAP, first time PPAP approval, customer surveys, internal and external quality audits)

…establish zero defects as the goal of production.
(Internal PPM, scrap as a percentage of production)

…meet customer expectations for on-time delivery.
(Ford, GM, Stellantis, and other customer score cards, premium freight)

…avoid waste and excessive cost without jeopardizing quality.
(, Cost-Of-Poor-Quality)

…provide a safe environment for employees.
(Elimination of accidents)

For BRC Montpelier, the objectives are:

- fewer customer quality concerns
- lower scrap dollars as a percent of C.O.P
- elimination of accidents
- On-Time Delivery

Section 4.0 Context of organization

4.1 Understanding the organization and its context:

BRC Rubber & Plastics, Inc. has. Determined external and internal issues that are relevant to its purpose and its strategic direction that affects its ability to achieve the intended results of its quality management system. BRC has established documented, implemented, monitors and reviews in order to maintain a quality management system which drives continual improvements and its effectiveness in accordance with the requirements of ISO 9001 / IATF 16949.

Notes:
Issues may include positive and negative factors or conditions for consideration.

Understanding the external context may be facilitated by considering issues arising from legal technological, competitive, market, cultural, social and economic environments, whether international, national, regional or local.

Understanding the internal context may be facilitated by considering issues related to values, culture, knowledge and performance of the organization.

BRC will determine whether climate change is a relevant issue.

4.2 Understanding the needs and expectations of interested parties.

Due to the effect or potential effect on the BRC's ability to consistently provide products and services to meet customer and applicable statutory and regulatory requirements BRC has determined:

- the interested parties that are relevant to the quality management system.
- the requirements of these interested parties that are relevant to the quality management system

BRC will monitor and review information about these interested parties and their relevant requirements.

Note:

Relevant interested parties can have requirements related to climate change.

4.3 Determining the scope of the quality management system

ISO 9001 & IATF 16949 and customer specific requirements, regulatory, and statutory requirements specifies the requirements for a quality management system. BRC has demonstrated its ability to consistently provide product that meets customer and applicable statutory and regulatory requirements. BRC enhances customer satisfaction through the effective application of the system, including processes for

continual improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

Statutory and regulatory requirements are a concern as it relates to product and includes various factors that influence the design and implementation of the QMS.

The process approach needs to take into account the risk and desired outcomes (i.e. objectives) of a process.

Emphasis has been given that ISO 14001 is compatible to ISO 9001 and IATF 16949 requirements.

IATF 16949, in conjunction with ISO 9001, IATF16949 Sanctioned Interpretations and Frequently Asked Questions, define the quality management system requirements for the design and development, production and, when relevant, installation and service of automotive-related products.

For BRC, IATF 16949 is applicable to the Bluffton, Churubusco, Hartford City and Montpelier locations. The Sales and Corporate Office locations is listed as a support site to the manufacturing locations.

For ISO 9001 is applicable to Ligonier location with the Sales and Corporate Office listed at support to this manufacturing location.

4.3.1 Determining the scope of the quality management system – supplemental

Supporting functions, whether on site or remote (corporate headquarters, and distribution centers), shall be included in the scope of the Quality Management System (QMS)

The only permitted exclusion for this Automotive QMS Standard relates to the product design and development requirements within ISO 9001, Section 8.3. The exclusion shall be justified and maintained as documented information (see ISO 9001, Section 7.5).

Permitted exclusions do not include manufacturing process design.

4.3.2 Customer-specific requirements

Customer specific requirements will be evaluated and be included as part of the quality management system.

4.4 Quality management system and its processes

4.4.1 BRC has established, implemented, maintained and continually improves the quality management system, including processes needed as well as their interactions in accordance with the requirements of ISO 9001and IATF 16949.

BRC has:

- **determined the processes needed for the quality management system and their application throughout the organization**
- **determined the sequence and interaction of these processes**
- **determined and have applied the criteria and methods (including, monitoring, measurements and related performance indicators) needed to ensure that both the operation and control of these processes are effective**
- **ensured the availability of resources and information necessary to support the operation and monitoring of these processes**
- **assigned the responsibilities and authorities for these processes;**
- **addressed the risks and opportunities determined in accordance with requirements of 6.1;**
- **evaluate BRC processes and implement actions that may be needed to achieve planned results and continual improvement of these processes**
- **BRC will improve the processes and quality management system based on evaluation of the processes and systems actual results vs planned results where feasible.**

4.4.1.1 Conformance of products and processes;
BRC shall ensure conformance of all products and processes, including service parts as well as outsourced product, to all applicable customers, statutory, and regulatory requirements

4.4.1.2 Product safety;
BRC has documented processes for the management of product-safety related to products and manufacturing processes which include but are not limited to the following, where applicable.

- identification by BRC of the statutory and regulatory product-safety requirements.
- customer notification of requirements in item a);
- special approvals for design FMEA;
- identification of product safety characteristic
- identification and controls of safety-related characteristics of product and at the point of manufacture;
- special approval of control plans and process FMEA's;
- reaction plans (see section 9.1.1.1);
- defined responsibilities, definition of escalation process and flow of information, including top management, and customer notification;
- training identified by the organization or customer for personnel involved in product-safety related products and associated manufacturing processes;
- changes of product or process will be approved prior to implementation, including evaluation of potential effects on product safety from process and product changes;
- transfer of requirements with regard to product safety through the supply chain, including customer-designated sources;
- product traceability by manufactured lot (at a minimum) throughout the supply chain (see section 8.5.2.1)
- lessons learned for new product introduction;

Note:
Special approval is an additional approval by the function (typically the customer) that is responsible to approve such documents with safety-related content.

4.4.2 BRC will maintain documented information to support the operation of our processes and will retain documented information as evidence that the processes are being carried out as planned.

The control over outsourced processes does not have to be identified but the type and extent of controls must be in the QMS. The outsourced processes do not absolve BRC of the responsibility of conformity to all customer requirements.

- Documentation Requirements

The quality management system includes:

- documented statements of the quality policy and quality objectives
- the BRC quality manual
- documented procedures required by IATF 16949 and ISO 9001
- documents needed by BRC to ensure the effective planning, operation and control of its processes;
- records required by IATF 16949 BRC has established and maintains a quality manual that includes:
- The scope of the quality management system
- The documented procedures established for the quality management system.
- The description of the interaction between the processes of the quality management system.

Documents and records required by the quality management system are controlled. Records are controlled according to the requirements. BRC may require records be created and maintained that are not required in IATF 16949. A documented procedure has been established to define the controls needed:

- to approve documents for adequacy prior to issue
- to review and update as necessary and re-approve documents
- to ensure that changes and the current revision status of documents are identified
- to ensure that relevant versions of applicable documents are available at points of use
- to ensure that documents remain legible and readily identifiable
- to ensure that documents of external origin are identified and their distribution controlled, and
- to prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose

BRC has a process to assure the timely review, distribution and implementation of all customer engineering standards/specifications and changes based on customer required schedule. Timely review occurs as soon as possible and will not exceed two working weeks.

BRC maintains a record of the date when a change is implemented in production. Implementation dates are also included in documents.

Records are established and maintained to provide evidence of conformity to requirements and of the effective operation of the quality management system. Records remain legible, readily identifiable and retrievable. A documented procedure is established to define the controls needed for the identification, storage, protection, retrieval, retention time and disposition of records.

Regulatory and customer requirements also have record retentions established.

Only those records needed for the planning and operation of the QMS need to be controlled. This could exclude occupational health and safety.
BRC is responsible for documenting record control procedures.

5.0 Leadership

5.1 Leadership and Commitment

5.1.1 General

BRC's top management provides evidence of its commitment to the development and implementation of the quality management system and continually improving its effectiveness by:

- taking accountability for the effectiveness of the quality management system;
- ensuring that the quality policy and quality objectives are established for the quality management system and are compatible with the context and strategic direction of the organization.
- promoting the use of process approach and risk-based thinking;
- ensuring that the resources needed for the quality management system are available;
- communicating the importance of effective quality management and conforming to the quality management system;
- establishing quality policy
- ensuring that quality objectives are established
- engaging, directing and supporting persons to contribute to the effectiveness of the quality management system.
- promoting improvements throughout the company;
- supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility
- conducting management reviews

5.1.1.1 Corporate responsibility

BRC has defined and implemented corporate responsibility policies, a zero tolerance policy and software code of ethic for all personnel with email access.

5.1.1.2 Process effectiveness and efficiency

BRCs' top management reviews the product realization processes and support processes to evaluate and improve their effectiveness and efficiency. The results of process review is included as input to the management review (see Section 9.3.2.1)

5.1.1.3 Process owners

BRCs' Top Management has identified process owners who are responsible for managing BRCs' processes and related outputs. Process owners understand their roles and are competent to perform their roles. (see ISO 9001, Section 7.2)

5.1.2 Customer Focus

BRC's top management provides leadership and commitment to ensure that customer specific, statutory and regulatory requirements are determined and risks and opportunities that can affect conformity of products and services are met with the aim of enhancing customer satisfaction.

5.2 Policy

5.2.1 Establishing the quality policy

BRC's top management ensures that the quality policy

- is appropriate to the purpose, context of the organization and supports strategic plans.
- provides the foundation for establishing and reviewing quality objectives.
- includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system
- quality policy is reviewed for continuing suitability

Top management of BRC ensures that quality objectives, including those needed to meet requirements for product, they are established at relevant functions and levels within the organization. The quality objectives are measurable and consistent with the quality policy.

Top management has defined quality objectives and measurements that are included in the business plan and used to deploy the quality policy

The integrity of the quality management is maintained when changes to the quality management system are planned and implemented.

5.2.2 Communicating the quality policy

- quality policy is available and maintained as documented information;
- quality policy is communicated, understood and applied within the organization;
- quality policy is available to interested parties on BRC web site and will be sent upon request;

5.3 Organization roles, responsibilities and authorities

Top management ensures that the responsibilities and authorities for relevant roles are

assigned communicated and understood within the organization

- BRC ensures that the quality management system conforms to requirements of ISO 9001 and IATF 16949, IATF Sanctioned Interpretations, Frequently Asked Questions, customer specific requirements, as well as statutory and regulatory requirements.
- BRC ensures that the processes are delivering their intended outputs;
- BRC reports on the performance of the quality management system and opportunities for improvement to top management;
- BRC ensures customer focus throughout the organization;
- BRC ensures that the integrity of the quality management system is maintained,
- when the quality management systems are planned and implemented.

5.3.1 Organizational roles responsibilities and authorities – supplemental
BRC has defined personnel responsible for product quality that are promptly informed of products or processes that do not conform to requirements. Personnel responsible for product quality have the authority to stop production in order to correct quality problems. Production operations on all shifts are staffed with personnel in charge of, or delegated responsibility for, ensuring product quality.

5.3.2 Responsibility and authority for product requirements and corrective actions
The VP of Quality is the management representative for BRC's quality management system. A consultant cannot represent BRC as management representative. The responsibility and authority of the management representative includes:

- personnel responsible for conformity to product requirements and have the authority to stop shipment and stop production to correct quality problems;

Note: Due to process design in some industries, it might not always be possible to stop production immediately. In this case, the affected batch must be contained and shipment to customer prevented.

- Personnel with authority and responsibility for corrective action are promptly informed of products or processes that do not conform to requirements to ensure that nonconforming product is not shipped to the customer and that all potential nonconforming product has been identified and contained;
- Production operations across all shifts are staffed with personnel in charge of, or delegated responsibility for ensuring conformity to product requirements;

BRC has designated personnel with responsibility and authority to ensure customer requirements are addressed. This includes selection of special characteristics, setting quality objectives and related training, corrective and preventive actions, product design and development. BRC Engineering is the "Customer Representative" until the part is PPAP approved. Once approved, the Quality Manager has the responsibility and authority to assure requirements are addressed and is then the "Customer Representative.

Appropriate communication processes have been established within the organization and communication takes place regarding the effectiveness of the quality management system.

Organizational Structure and Key Processes

Organizational Structure

- BRC Rubber & Plastics, Inc. plant management reports to a corporate management team that oversees the activities of the organization and allocates the resources to its divisions.

- As a customer-focused organization, BRC takes its direction from the marketplace. The BRC Plant Manager represents the interests of the organization and its owners in satisfying the needs of the customers. The Quality Manager serves as the Management Representative for each BRC location and is the primary point of contact for communication regarding the system within each division. The Plant Manager will delegate to the appropriate managers the specific responsibilities and authorities for managing the various functions of the system. The VP of Quality is the Management Representative for BRC.

Key Processes

The BRC quality management system is designed to provide for the efficient movement of material and information from one function to another in order to achieve desired results. Process flow diagrams show the typical flow and the interrelationships of the various functions of the organization.

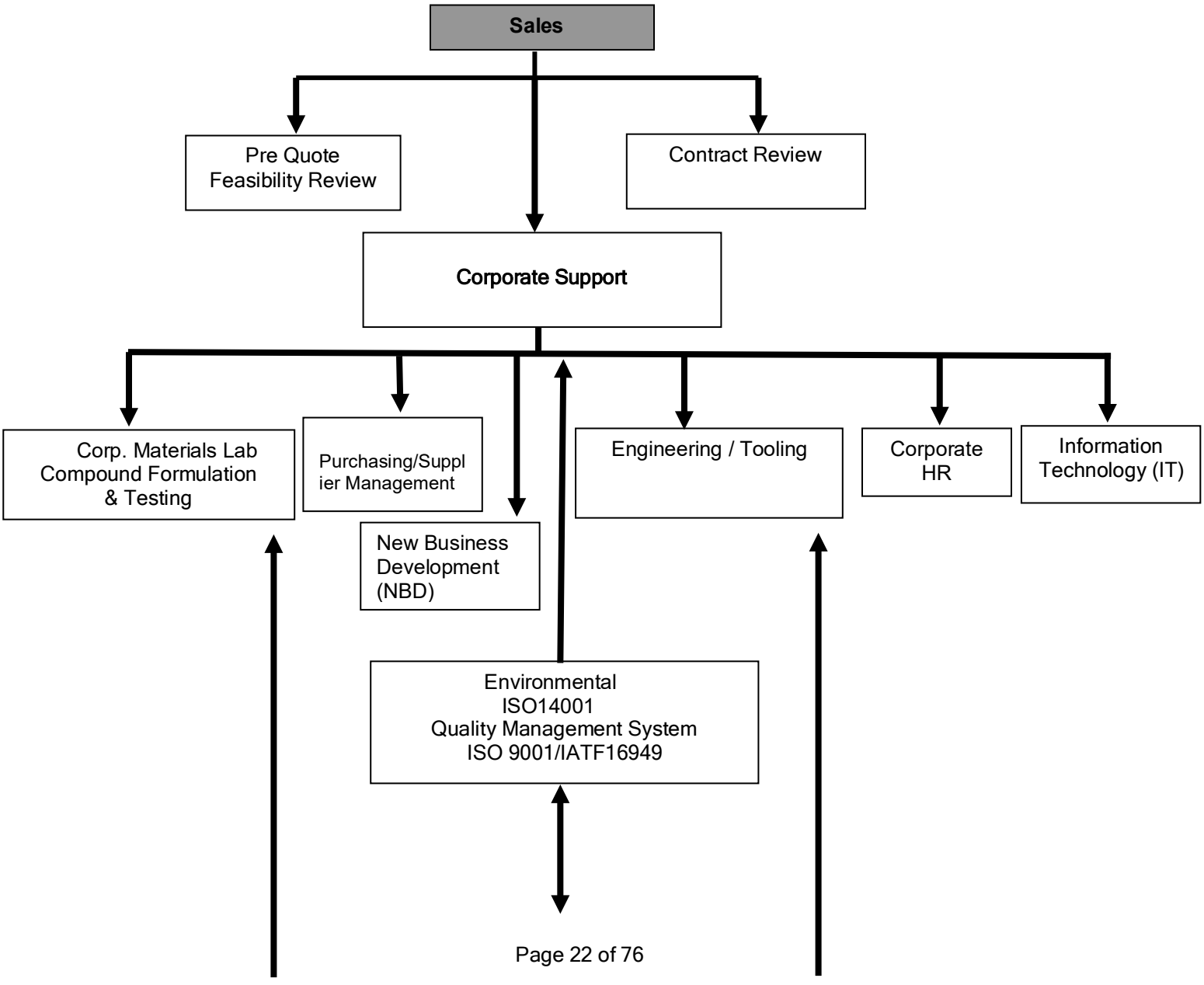
Product realization is supported by additional functions that provide system infrastructure.

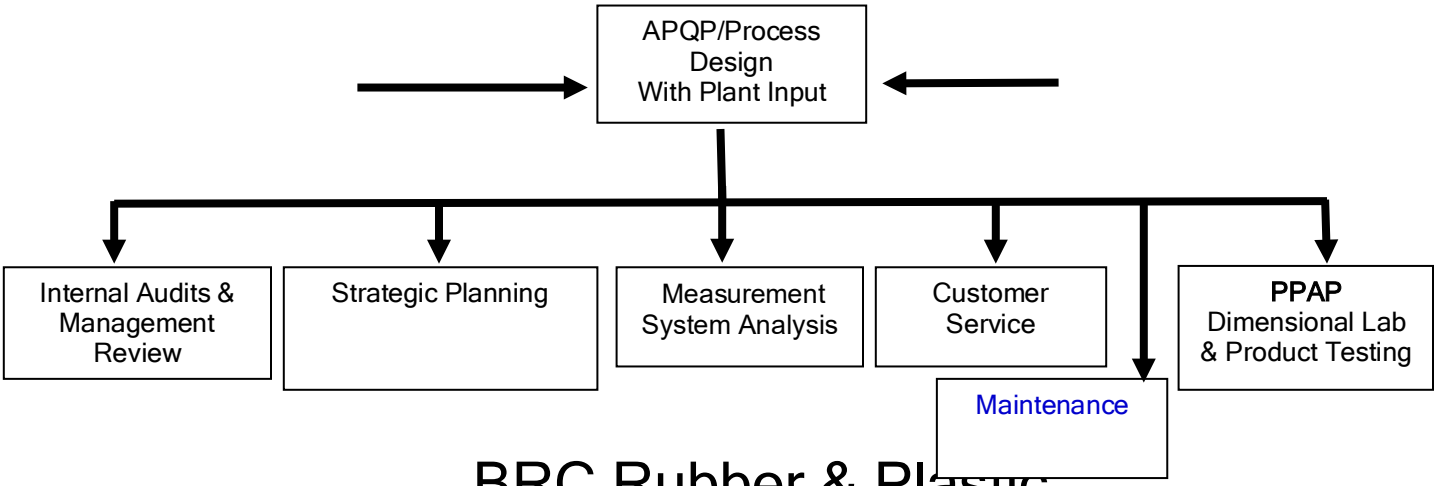
BRC has identified five (5) key processes. With each key process are support processes. They are:

- Marketing (quotation, feasibility, contract review)
- Planning (design, APQP, purchasing/supplier development, customer service)
- Manufacturing (PPAP, training, scheduling, receiving, manufacturing, packaging/shipping, inspection and testing, statistical techniques, measurement system analysis, internal quality audits, non-conforming material, on-time delivery, warranty, maintenance/tooling)
- Customer feedback (customer ratings, customer surveys, customer specific requirements)
- Continual improvement (Quality Operating System, Business Operating System, preventive actions, management reviews, corrective actions,)

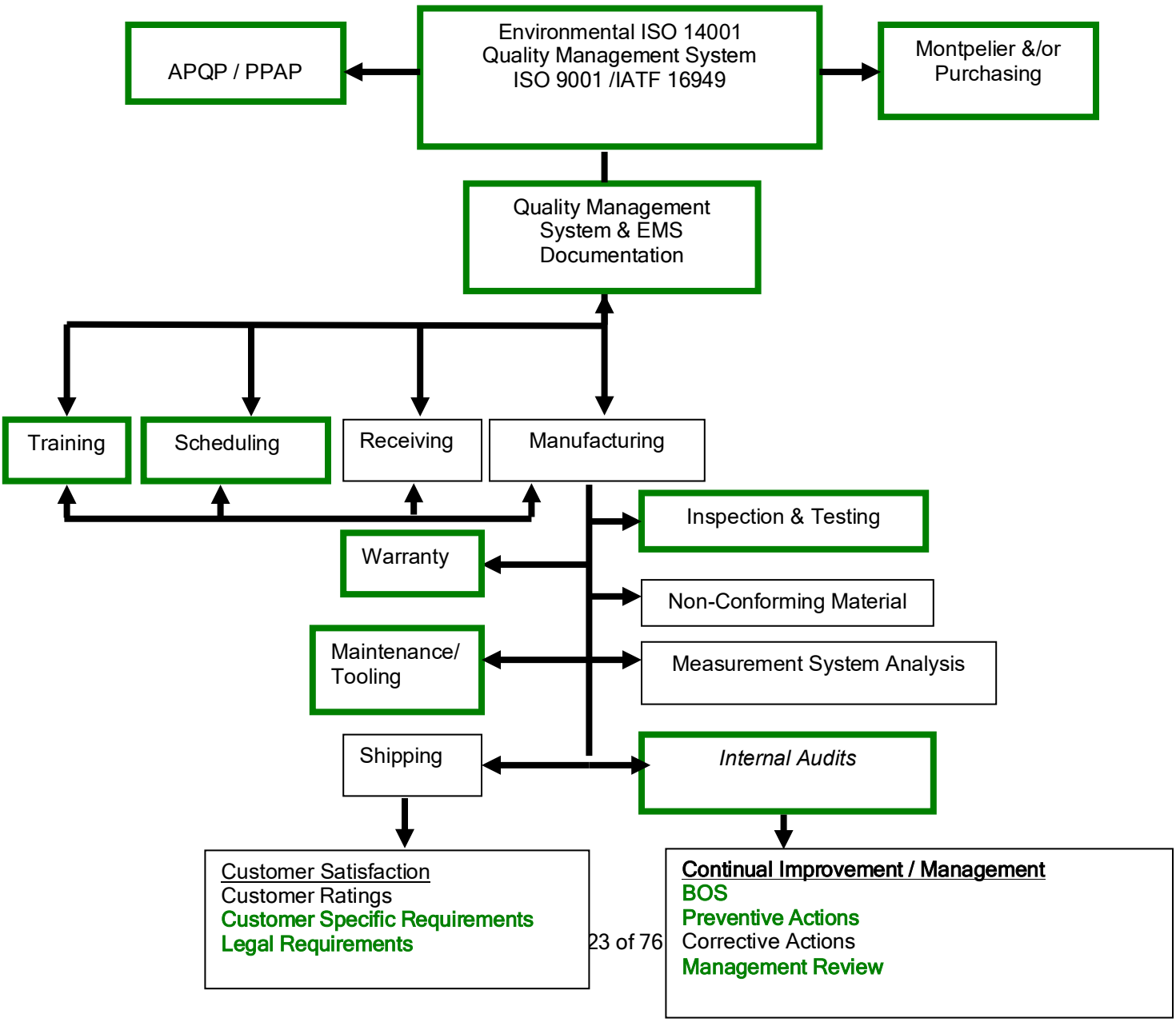
The following page is a flow diagram of BRC's key process with support processes:

BRC Rubber & Plastic
Process Map
Corporate Level Support



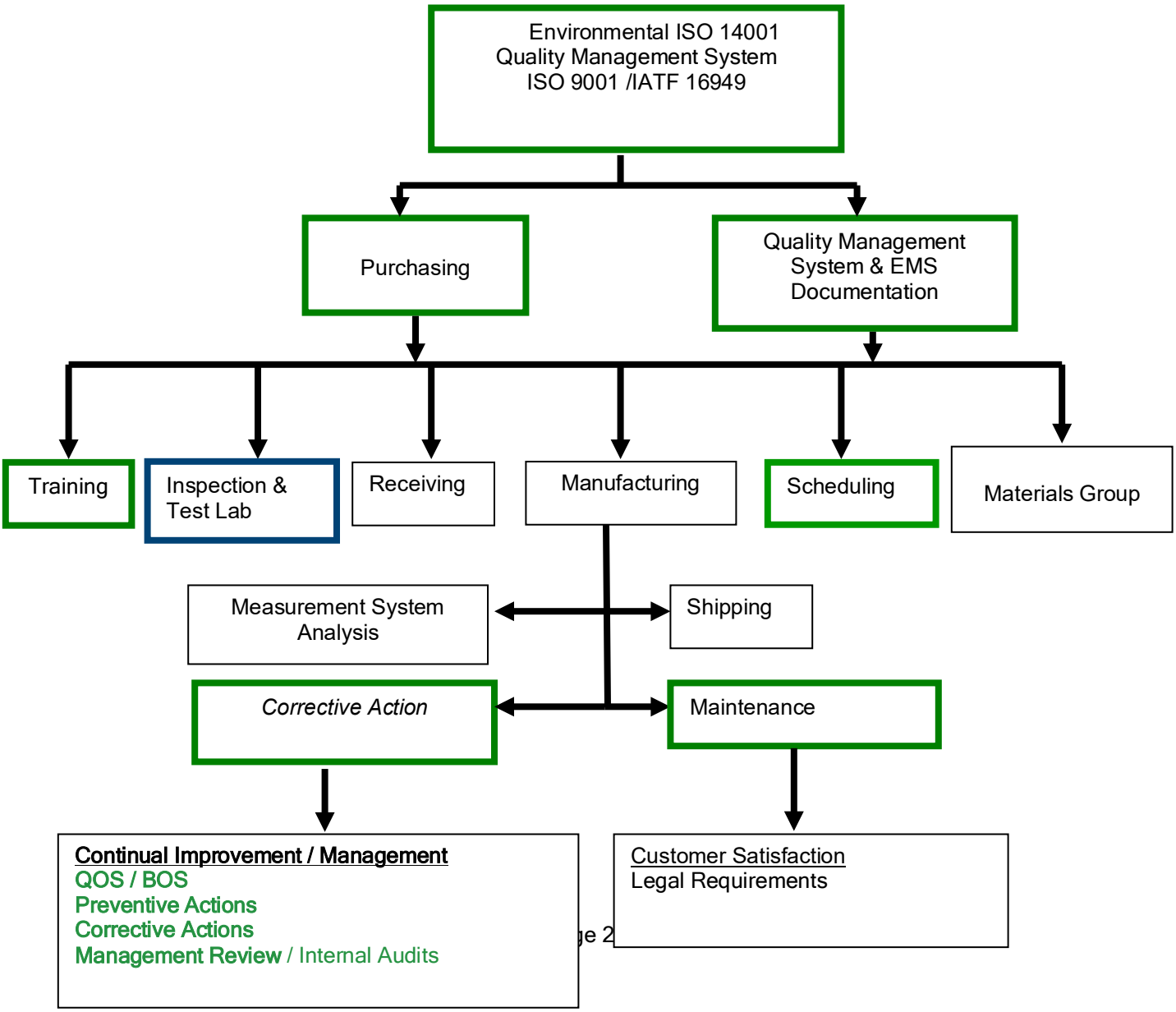


BRC Rubber & Plastic Process Map Manufacturing Support



Note: Green text and lines reflect corporate support and interactions, along with plant responsibility,

BRC Rubber & Plastic
Montpelier
Process Map
Manufacturing Support



Note: Green text and lines reflect corporate support and interactions.
A blue line represents manufacturing plant support.

6.0 Planning
6.1 Actions to address risks and opportunities

6.1.1 During the planning of BRC quality management system, BRC has taken into consideration external and internal risks and opportunities that may need to be addressed to:

- **give assurance that the quality management system can achieve BRC's quality objectives;**
- **enhance desirable effects;**
- **prevent or reduce undesirable effects;**
- **achieve improvements.**

This is achieved by performing risk assessments on processes that are part of the quality management system for evaluation by the management team.

6.1.2 BRC will assign actions to address risk and opportunities for improvement or elimination of risk and implement into the quality management system processes. Once implemented actions will be evaluated for effectiveness. Reference 4.4. Actions taken to address risk and opportunities will be proportionate to the potential impact on the conformity of the product or services.

Note:
Options to address any risk can be avoiding the risk or taking risk in order to pursue an opportunity eliminating the risk source, changing the likelihood or consequences, sharing the risk, or retaining risk by informed decision.

Note:
Opportunities can lead to the adoption of new practices, launching new products, opening new markets, addressing new customers, building partnerships, using new technology and other desirable and viable possibilities to address the BRC's or our customer's needs.

6.1.2.1 Risk analysis
BRC includes in risk analysis at a minimum, lessons learned from product recalls, product

audits, field returns, repairs, complaints, scrap and rework. Records of the results of risk analysis are reviewed and maintained. Risk assessment review will be conducted at a minimum of annually by risk assessment team.

6.1.2.2 Preventive action

BRC has systems in place to determine and implement actions that may be needed to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions that BRC implements will be appropriate to the severity of the potential risk. BRC has established process to reduce the impact of negative effects of risk including the following;

- determining potential nonconformities and causes;
- evaluating the need for actions to prevent occurrence of nonconformities;
- determining and implementing actions needed
- documenting information of action taken
- reviewing the effectiveness of preventive actions taken
- utilizing lessons learned to prevent recurrence in similar processes

Reference: 7.1.6 of the manual.

6.1.2.3 Contingency plans

Contingency plans have been developed to satisfy customer requirements in the event of an emergency such as utility interruptions, labor shortages, key equipment failure and field returns. BRC has;

- identified and evaluated internal and external risk for all manufacturing processes and infrastructure equipment essential to maintain production output and ensure that the customer requirements are met;
- defined contingency plans according to risk and impact to the customer;
- prepared contingency plans for continuity of supply in the event of any of the following: key equipment failures; (see section 8.5.6.1.1); interruption from externally provided products, processes, and services; recurring natural disasters; fire; utility interruptions; labor shortages; or infrastructure disruptions;
- included as a supplement to the contingency plans, a notification process to the customer and other interested parties for the extent and duration of any situation impacting customer operations;
- periodically test the contingency plans for effectiveness (e.g., simulations, as appropriate);
- conduct contingency plan reviews (at a minimum annually) using a
- multidisciplinary team including top management, and update as required;
- document the contingency plans and retain documented information describing any revision (s), including the person(s) who authorized change(s).

BRC's contingency plans include provision to validate product manufactured continues to meet customer specifications after re-start of production following emergency in which production was stopped and if regular shutdown processes were not followed.

6.2 Quality objectives and planning to achieve them

6.2.1 BRC has established quality objectives at relevant functions, levels and processes that BRC has determined is needed for the quality management system. The quality objectives will;

- **be consistent with the quality policy;**
- **be measurable;**
- **take into account applicable requirements;**
- **be relevant to conformity of products and services and to enhancement of customer satisfaction;**
- **be monitored;**
- **be communicated;**
- **be updated as appropriate.**

Records will be maintained and documented for review of quality objectives. Review of quality objectives is done each month with Top Management. Plant Management reviews BOS key measurable and at the plant level QOS a results with employees

6.2.2 Planning of how to achieve BRCs quality objectives, will determine

- **what will be done**
- **what resources will be required**
- **who will be responsible**
- **when it will be completed**
- **how the results will be evaluated**

6.2.2.1 Quality objectives and planning to achieve them – supplemental

Top management ensures that quality objectives needed to meet customer requirements are defined, established and maintained for relevant functions, processes and levels through BRC.

Results of BRC's review regarding interested parties and their relevant requirements are considered when quality objectives are established annually based on results of prior year(s) key measurable. Internal and external results are both included in this review.

6.3 Planning of changes

When BRC determines the need for changes to quality management system, the changes will be implemented in a planned manner. Reference: 4.4 when making changes
BRC will take into consideration the following;

- **the purpose of the change and their potential consequences;**
- **the integrity of the quality management system;**
- **the availability of resources;**

- **the allocation or reallocation of responsibilities and authorities.**

7.0 Support
7.1 Resources
7.1.1 General

BRC shall determine and provide the resources needed for the establishment, implementation, maintenance and continue improvement of the quality management system.

BRC will take into consideration;

- **the capabilities of, and constraints on, existing internal resources;**
- **what needs to be obtained from external providers**

7.1.2 People
BRC has determined and provides employees that are necessary for the effective implementation of its quality management system and for the operation and control of its processes.

7.1.3 Infrastructure
BRC has determined, provided and maintained the infrastructure needed to for the operation of our processes and achieve conformity to product requirements. Infrastructure includes, as applicable:

- **buildings, workspace and associated utilities**
- **process equipment, including hardware and software;**
- **supporting services (example; transport or communication)**
- **databases and information technology**

BRC uses a multidisciplinary approach for developing plant, facility and equipment plans. Plant layouts will optimize material travel, handling and value-added use of floor space, and will facilitate synchronous material flow.

BRC investigates, confirms and documents the manufacturing feasibility of the proposed products in contract review process, including risk analysis.

7.1.3.1 Plant, facility, and equipment planning
BRC uses a multidisciplinary approach, which includes risk identification and risk mitigation methods to develop and improve plant, facility, and equipment plans. When designing plant layouts, BRC will;

- **optimize material flow, material handling, and value-added use of floor space including control of nonconforming product, and**
- **facilitate synchronous material flow, as applicable**

BRC has planned and developed the processes needed for product realization. Planning of product realization is consistent with the requirements of the other processes of the quality management system.

Manufacturing feasibility includes capacity planning and BRC uses these methods for evaluating proposed changes to existing operations.

BRC investigates, confirms and documents the manufacturing feasibility of the proposed products or new operations, during contract review process, including risk analysis.

BRC monitors and evaluates process effectiveness, including periodic re-evaluation that may be relative to risk, to incorporate changes made during process approval, control plan maintenance (section: 8.5.1.1) as well as verification of job set up.

In planning product realization,
BRC has determined the following, as appropriate:

- **quality objectives and requirements for the product**
- **the need to establish processes, documents, and provide resources specific to the product**
- **required verification, validation, monitoring, inspection and test activities specific to the product and the criteria for product acceptance**
- **records needed to provide evidence that the realization processes and resulting product meet requirements**

Note: These requirements may include the application of lean manufacturing principles when feasible and may apply to on site supplier activities as applicable.

Customer requirements and references to its technical specifications have been included in the planning of product realization as a component of the quality plan.

Acceptance criteria has been defined and where required, approved by the customer. For attribute data, the acceptance level is zero defects.

BRC ensures the confidentiality of customer-contracted products and projects under development, and related product information.

BRC has a process to control, react and measure changes that impact product realization. The effects of any change, including those changes caused by any supplier, have been addressed and verification and validation activities are defined to ensure compliance with customer requirements. Changes are validated before implementation.

For proprietary designs, impact on form, fit and function are reviewed with the customer so that all effects can be properly evaluated.

BRC investigates, confirms and documents the manufacturing feasibility of the proposed products in contract review process, including risk analysis.

7.1.4 Environment for the operation of processes

BRC has determined, provides and maintains the environment that is required for the operation of our processes, in order to achieve conformity of products and services.

Note: A suitable environment can be combination of human and physical factors, such as;

- **Social (e.g. stress-reducing, burnout prevention, emotionally protective);**
- **Psychological (e.g. non-discrimatory, calm, non-confrontational);**
- **Physical (e.g. temperature, heat, humidity, light, airflow,hygiene, noise);**

These factors may differ substantially depending on the products and services provided.

7.1.4.1 Environment for the operation of processes-supplemental

BRC maintains its premises in a state of order, cleanliness and repair that is consistent with the product and manufacturing process needs.

Product safety and means to minimize potential risks to employees has been addressed by BRC, especially in the design and development process and in manufacturing process activities.

7.1.5 Monitoring and measuring resources

7.1.5.1 General

BRC determines and provides the required resources that may be needed to ensure that accurate and reliable results are achieved when monitoring and measuring is used to verify the conformity of products and services to requirements, including equipment, software and devices that are purposed for monitoring and measuring, regardless of their original intended purpose, to be undertaken and the monitoring and measuring devices needed to provide evidence of conformity of product to determined requirements.

7.1.5.1.1 Measurement systems analysis

Statistical studies are conducted to analyze the variation present in the results of each type of measuring and test equipment. This applies to measurement systems referenced in the control plan. The analytical methods and acceptance criteria used conform to those in customer reference manuals on measurement systems analysis. Other analytical methods and acceptance criteria may be used if approved by the customer.

Records of customer acceptance of alternative methods will be retained along with results from alternative measurement systems analysis (see Section 9.1.1.1)

Note: Prioritization of MSA studies will focus on critical or special product or process characteristics.

7.1.5.2 Measurement traceability

BRC has an established process to ensure that monitoring and measurement can be carried out in a manner that is consistent with the requirements. When necessary to

ensure valid results, measuring equipment will be:

- **calibrated &/ or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; where no such standards exist, the basis used for calibration or verification will be recorded**
- **adjusted or re-adjusted as necessary**
- **identified to enable the calibration status to be determined**
- **safeguarded from adjustments that would invalidate the results**
- **protected from damage and deterioration during handling, maintenance and storage**

If equipment is found to be out of calibration, BRC will assess and record the validity of the previous measuring results when the equipment is found not to conform to requirements. Appropriate action will be taken on the equipment and any product affected. Records of the results of calibration and verification will be maintained. When used in monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application is confirmed. This action is undertaken prior to initial use and reconfirmed as necessary.

7.1.5.2.1 Calibration / verification records

BRC has a defined process for managing calibration / verification records. Records of the calibration / verification activity for all gages, measuring and test equipment, needed to provide evidence of conformity of product requirements, including employee-and customer-owned equipment or on-site supplier owned equipment, needed to provide evidence of conformity to the internal requirements, legislative, regulatory, and customer-defined requirements will be retained and include:

- revisions following engineering changes that impact measurement systems;
- any out-of-specification readings as received for calibration/verification;
- an assessment of the risk of intended use of the product caused by out-of-specification condition;
- when a piece of inspection measurement and test equipment is found to be out of calibration or defective at anytime during its use, the documented information of previous measurement results obtained with this piece of test equipment must be done and actions recorded;
- notification to the customer if suspect product or material has been shipped;
- statements of conformity to specification after calibration/validation;
- records of calibration and maintenance activities for all gauging (including employee-owned equipment, customer owned equipment, or on site supplier-owned equipment);
- production-related software verification used for product and process control (including software installed on employee-owned equipment, customer-owned equipment, or on-site supplier owned equipment).

7.1.5.3 Laboratory requirements

7.1.5.3.1 Internal laboratory
BRC's internal laboratory facility has a defined scope that includes its capability to perform the required inspection, test or calibration services. This laboratory scope is included in the quality management system documentation. The laboratory specifies and implements, at a minimum, the requirements for:

- adequacy of the laboratory technical procedures;
- competency of the laboratory personnel;
- testing of the product;
- capability to perform these services correctly, traceable to the relevant process standard (such as ASTM, EN,etc); when no national standard (s) are available, BRC will define and implement a methodology to verify measurement system capability;
- customer requirements, if any;
- review of the related records;

Note: Third party accreditation to ISO / IEC 17025 (or equivalent) may be used to demonstrate BRC's in house laboratory conformity to this requirement.

7.1.5.3.2 External Laboratory
External/commercial/independent laboratory facilities used for inspection, test or calibration services by BRC has a defined scope that includes the capability to perform the required inspection, test or calibration;

- the laboratory will be accredited to ISO / IEC 17025 or national equivalent and include relevant inspection, test , or calibration service in the scope of the accreditation (certificate); the certificate of calibration or test report shall include the mark of the national accreditation body;
- or there shall be evidence that the external laboratory is acceptable to the customer.

Note: Such evidence may be demonstrated by customer assessment, for example, or by customer approved second-party assessment that the laboratory meets the intent of ISO/IEC 17025 or national equivalent. The second-party assessment may be performed by BRC assessing the laboratory using a customer-approved method of assessment.

Calibration services may be performed by the equipment manufacture when a qualified laboratory is not available for given piece of equipment. In such cases BRC shall ensure that the requirements listed in Section 7.1.5.3.1 have been met.

Use of calibration services, other than by qualified (or customer accepted) laboratories, may be subject to government regulatory confirmation, if required.

7.1.6 Organizational knowledge

BRC has determined the knowledge necessary for operation of its process In order to achieve conformity of products and service.

BRC has established and maintained documented procedures for identifying Training needs. Personnel performing specific assigned tasks are qualified, as required, with particular attention to the satisfaction of customer requirements. If the personnel have not yet attained the competence needed to perform their job, BRC must provide training to ensure that competence is achieved. BRC must prove to itself that the person can, in fact, perform.

7.2 Competence

Personnel performing work affecting product conformity to the quality requirements are competent on the basis of appropriate education, training, skills and experience. The boundaries of competence only extend to individuals who impact product conformity to defined requirements. This does not just include those who are directly involved in production. For example, as the decisions made by management affect product conformity, they must be competent as well. BRC has:

- **determined the necessary competence for personnel performing work affecting product quality**
- **provided training or taken other actions to satisfy these needs**
- **evaluated the effectiveness of the actions taken**
- **ensured that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives and maintained appropriate records of education, training, skills and experience**

BRC ensures that personnel with product design responsibility are competent to achieve design requirements and are skilled in applicable tools and techniques.

7.2.1 Competence----supplemental

BRC has determined and documented a process for identifying training needs including awareness (see Section 7.3.1) and achieving competence of all personnel performing activities affecting conformity to product and process requirements, Personnel performing specific assigned task are qualified, as required, with attention to satisfaction of customer

requirements. BRC performs needs assessments annually at a minimum for hourly employees and annual evaluation of all salary personnel.

7.2.2 Competence on-the-job-training

BRC provides on-the-job training for personnel for any new or modified job affecting product quality, internal requirements, regulatory or legislative requirements, which includes contract or agency personnel. BRC management will determine the level of detail required for the on-the-job training, and will be based on degree / level of skill needed to perform the job. Persons whose work may affect quality, will be informed about consequences of nonconformity to customer requirements.

7.2.3 Internal auditor competency;

BRC internal auditors are qualified to audit to the requirements of ISO 9001 and IATF: 16949. BRC maintains a list of all qualified auditors.

BRC conducts internal audits at planned intervals to determine whether the quality management system meets all IATF 16949 and Customer Specific Requirements:

BRC quality management system auditors, manufacturing process auditors,and product auditors can all demonstrate the following minimum requirements.

- **understanding of the automotive process approach for auditing, including risk based thinking;**
- **understanding customer specific requirements that may apply;**
- **understanding ISO 9001 and IATF 16949 requirements related to the scope of the audit.**
- **understanding core tools requirements that may apply to the scope of the audit;**
- **understanding of how to plan, conduct, report, and close out audit findings.**

BRC internal auditors have basic technical understanding of the relevant manufacturing processes that they audit, including the risk analysis (such as PFMEA) and control plans. Product auditors have understanding of product requirements, as well as use of any required measuring equipment that may be needed to validate product conformity.

Training records will be maintained for all internal auditors to show compentency of their skills to perform internal audits.

Maintenance of and improvement in internal auditors will be demonstrated through;

- **executing audits as scheduled and defined by BRC; and**
- **maintaining knowledge of all relevant requirements based on any internal changes (e.g., ISO 9001, IATF 16949, core tools, and customer specific requirements.**

The internal audit program is planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods is defined. Selection of auditors and conduct of audits ensures objectivity and impartiality of the audit process. Auditors do not audit their own work.

The responsibilities and requirements for planning and conducting audits, and for reporting results and maintaining records is defined in a documented procedure.

The management responsible for the area being audited ensures that actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities include the verification of the actions taken and the reporting of verification results.

Actions deemed necessary and taken by management to address nonconformities identified during the internal audit process must follow the requirements of the corrective action process (i.e. root cause, correction and corrective action).

BRC audits the quality management system to verify compliance with ISO 9001/IATF 16949 and any additional quality management system requirements.

Each manufacturing process is audited to determine its effectiveness.

Products at appropriate stages of production and delivery are audited to verify conformity to all specified requirements, such as product dimensions, functionality, packaging and labeling, at a defined frequency.

Internal audits cover all quality management related processes, activities and shifts, and are scheduled to an annual plan. When internal/external nonconformities or customer complaints occur, the audit is increased.

7.2.4 Second-party auditor competency
BRC demonstrates the competence of the auditors undertaking second party audits.
Second party auditors meets the customer specific requirements for auditor qualifications and will at a minimum following core compentencies, including understanding of;

- the automotive process approach to auditing, including risk based thinking;
- applicable customer and BRC specific requierments;
- applicable ISO 9001 and IATF 16949 requirements related to the scope of the audit.
- applicable manufacturing process(es) to be audited, including PFMEA and control plan;
- applicable core tool requirements related to the scope of the audit.
- how to plan, conduct, prepare audit reports, and close out audit finding

7.3 Awareness

BRC ensures that all personnel performing work for BRC are aware of and competent on the basis of appropriate education, training, skills, and experience.
The boundaries of competence only extend to individuals who impact product conformity to the defined requirements. This does not include those that are not directly involved in production. (Example: as decisions are made by management that affect product conformity, they must be competent as well.

- **the quality policy;**
- **relevant quality objectives;**
- **what their contribution to the effectiveness of the quality management system, including the benefits of the improved performance;**
- **the implications of not conforming with the quality management system requirements.**
- **determine the necessary competence for personnel performing work affecting product quality**
- **provide training or take other actions to satisfy these needs**
- **evaluate the effectiveness of the actions taken**
- **ensured that all BRC personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the established quality objectives and maintain appropriate records of educations, training, skills and experience.**

7.3.1 Awareness –supplemental
BRC maintains records of quality policy and objective review at the time of hire.
Monthly meetings are held with all employees by plant management team, to review objective status and results.

7.3.2 Employee motivation and empowerment
BRC has established QOS, BOS which the status of designated key metrics are posted within the plants and communicated through employees meetings. s

7.4 Communication
BRC has determined the internal and external communications relevant to our quality management system, including, but not limited to;

- **on what it will communicate;**
- **when to communicate;**
- **with whom to communicate;**
- **how to communicate;**
- **who communicates;**

7.5 Documented information
7.5.1 General
BRC's quality management system includes;

- **documented information required by International Standard;**
- **documented information determined by BRC as being necessary for the effectiveness of the quality management system.**

Note; The extent of documented information for quality management system can differ from one organization to another due to:

- **the size of organization and its type of activities, processes, products and services.**
- **the complexity of processes and their interactions;**
- **the competence of persons**

7.5.1.1 Quality management system documentation

BRC Rubber & Plastics, Inc. has established, documented, implemented and maintained a quality management system and continually improves its effectiveness in accordance with the requirements of ISO 9001 and IATF 16949**.**

BRC has:

- determined the processes needed for the quality management system and their application throughout the organization
- determined the sequence and interaction of these processes
- determined criteria and methods needed to ensure that both the operation and control of these processes are effective
- ensured the availability of resources and information necessary to support the operation and monitoring of these processes
- monitored, measured and analyzed, where applicable, these processes and
- implemented actions necessary to achieve planned results and continual improvement of these processes

The control over outsourced processes does not have to be identified but the type and extent of controls must be in the QMS. The outsourced processes do not absolve BRC of the responsibility of conformity to all customer requirements.

The quality management system includes:

- documented statements of the quality policy and quality objectives
- the BRC quality manual
- documented procedures required by ISO 9001 / IATF 16949 documents needed by BRC to ensure the effective planning, operation and control of its processes
- records required by by ISO 9001 / IATF 16949 and customer specific requirements

BRC has established and maintained a quality manual that includes at a minimum:

- The scope of the quality management system **including details of and justification for any exclusions;**
- **BRC's processes and their sequence and interactions (inputs and outputs), including type and extent of control of any outsourced processes.**

Note: A matrix of how the requirements of this Automotive QMS standard are addressed by BRC's processes may be used to assist with linkages to BRC's processes and the Automotive QMS.

7.5.2 Creating and updating

BRC has defined the process for creating and updating documentation to ensure that appropriate:

- **identification and description (e.g. , a title, date, author, or reference number);**
- **format (e.g., language, software version,graphics) and media (e.g., paper, electronic);**
- **review and approval for suitability and adequacy.**

7.5.3 Control of documented information

7.5.3.1 Documents and records required by the quality management system and by ISO 9001 are controlled to ensure:

- It is available and suitable for use, where and when it is needed;
- It is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).

7.5.3.2 For control of documented information, BRC has addressed the following activities as applicable:

- **distribution, access, retrieval and use;**
- **storage and preservation, including preservation of legibility**
- **control of changes (e.g. from loss of confidentiality, improper use, or loss of integrity).**

Records are controlled according to the requirements. BRC may require records be created and maintained that are not required in ISO 9001 and IATF 16949.
A documented procedure has been established to define the controls needed:

- to approve documents for adequacy prior to issue
- to review and update as necessary and re-approve documents
- to ensure that changes and the current revision status of documents are identified
- to ensure that relevant versions of applicable documents are available at points of use
- to ensure that documents remain legible and readily identifiable
- to ensure that documents of external origin are identified and their distribution controlled, and
- to prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose

BRC has a process to assure the timely review, distribution and implementation of all customer engineering standards/specifications and changes based on customer required schedule. Timely review occurs as soon as possible and will not exceed two working weeks.

BRC maintains a record of the date when a change is implemented in production. Implementation dates are also included in documents.

Records are established and maintained to provide evidence of conformity to requirements and of the effective operation of the quality management system. Records remain legible, readily identifiable and retrievable. A documented procedure is established to define the controls needed for the identification, storage, protection, retrieval, retention time and disposition of records.

Regulatory and customer requirements also have record retentions established.

Only those records needed for the planning and operation of the QMS need to be controlled. This could exclude occupational health and safety.

BRC is responsible for documenting record control procedures.

7.5.3.2.1 Record retention
BRC has a defined process and procedure for record retention policy. The control of records satisfies statutory, regulatory, organizational and customer requirements,

Production part approvals, tooling records (including maintenance and ownership), product and process design records, purchase orders, or contracts and amendments will be retained for the length of time that the product is active for production and service requirements, plus one calendar year, unless otherwise specified by the customer or regulatory agency.

7.5.3.2.2 Engineering specifications
BRC has a documented process describing review, distribution and implementation of all customer engineering standards / specifications and related revisions based on customer schedules as required.

When an engineering standard / specification change results in a design change, refer to requirement in ISO 9001, Section 8.3.6. When an engineering change results in a product realization process change, refer to requirements of 8.5.6.1. BRC will retain a record of date on which each change is implemented into production. Any documented effected by this change will be updated as needed.

8.0 Operation

8.1 Operational planning and control

BRC has planned and developed the processes needed for product realization. Planning of product realization is consistent with the requirements of the other processes of the

quality management system. In planning product realization, BRC has determined the following, as appropriate:

- **quality objectives and requirements for the product**
- **the need to establish processes, documents, and provide resources specific to the product**
- **required verification, validation, monitoring, inspection and test activities specific to the product and the criteria for product acceptance**
- **records needed to provide evidence that the realization processes and resulting product meet requirements**
- **determining the requirements for the products and services;**
- **establishing criteria for**
    a. **the processes;**
    b. **the acceptance of product and service**
    c. **determining the resources needed to achieve conformity to the product and service requirements.**
    d. **implementing control of the processes in accordance with the criteria;**
    e. **determining, maintaining and retaining documented information o the extent necessary.**
        1) **to have confidence that the processes have been carried out as planned;**
        2) **to demonstrate the conformity of the products and services to their requirements.**

The output of this planning is suitable for BRC's operations.

BRC controls planned changes and reviews the risk of unintended changes taking action to mitigate any adverse effects, as necessary.

Customer requirements and references to its technical specifications have been included in the planning of product realization as a component of the quality plan.

Acceptance criteria has been defined and where required, approved by the customer. For attribute data, the acceptance level is zero defects.

BRC has a process to control, react and measure changes that impact product realization. The effects of any change, including those changes caused by any supplier, have been addressed and verification and validation activities are defined to ensure compliance with customer requirements. Changes are validated before implementation.

For proprietary designs, impact on form, fit and function are reviewed with the customer so that all effects can be properly evaluated.

8.1.1 Operational planning and control – supplemental
During the planning of product realization, the following will be included in the planning;

- customer product requirements and technical specifications;
- logistics requirements;

- manufacturing feasibility
- project planning (refer to ISO 9001, Section 8.3.2), acceptance criteria

Resources identified in (ISO 9001 Section 8.1 c) refer to the required verification and validation monitoring, measurement, inspection, and test activities specific to the product and the criteria for product acceptance.

8.1.2 Confidentiality
BRC ensures the confidentiality of customer-contracted products and projects under development, and related product information.

8.2 Requirements for products and services

8.2.1 Customer Communication
BRC's communication with the customer includes but not limited to;

a. **providing information relating to products and services;**
b. **handling enquiries, contracts or orders, including changes;**
c. **obtaining customer feedback relating to products and services, including customer complaints;**
d. **handling or controlling customer property;**
e. **establishing specific requirements for contingency actions, when relevant.**

8.2.1.1 Customer communication – supplemental
BRC has determined and implemented effective arrangements for communicating with customers in relation to:

- **product information**
- **enquiries, contracts or order handling, including amendments, and customer feedback, including customer complaints**

BRC communicates necessary information, including data, in customer-specific language and format (e.g. computer-aided design data, electronic data exchange).

8.2.2 Determining the requirements for products and services
BRC has established the requirements for products and services with the input from the customer and the following inputs;

- **Any applicable statutory and regulatory requirements**
- **Any considered necessary by BRC**

BRC ensures that we can meet the claims for the products and services that BRC offers.

8.2.2.1 Determining the requirements for products and services – supplemental
BRC includes services such as recycling or final disposal, environmental impact, and characteristics identified as a result of BRC's knowledge of the product and

manufacturing processes. Compliance to ISO 9001 Section 8.2.2 shall include but not limited to the following; all applicable government, safety, and environmental regulations related to acquisition, storage, handling, recycling, elimination, or disposal of material.

8.2.3 Review of the requirements for production and services
8.2.3.1 BRC has determined the requirements for the products and services:

- **requirements specified by the customer, including the requirements for delivery and post-delivery activities**
- **requirements not stated by the customer but necessary for specified or intended use, where known**
- **statutory and regulatory requirements related to the product, and**
- **any additional requirements determined by BRC**
- **contract or order requirements differing from those that previously expressed**

8.2.3.1.1 Review of the requirements for products and service – supplemental
BRC maintains documented evidence of any customer authorized waiver, for any product that does not meet the customer specific requirements. See section 8.2.3.1 for formal review process.

8.2.3.1.2 Customer designated special characteristics
BRC has designated personnel with responsibility and authority to ensure customer requirements are addressed. This includes selection of special characteristics, setting quality objectives and related training, corrective and preventive actions, product design and development. BRC Engineering is the "Customer Representative" until the part is PPAP approved. Once approved, the Quality Manager has the responsibility and authority to assure requirements are addressed and is the "Customer Representative". The "Customer Representative" will assure that all requirements are met.

Appropriate communication processes have been established within the BRC Quality Management System and communication takes place regarding the effectiveness of the quality management system.

BRC maintains records of the results of the customer specific requirements review and actions arising from the review. Where the customer provides no documented statement of requirement, the customer requirements are confirmed by BRC before acceptance.

When product requirements are changed, BRC ensures that relevant documents are amended and that relevant personnel are made aware of the changed requirements.

BRC investigates, confirms and documents the manufacturing feasibility of the proposed products in contract review process, including risk analysis.

8.2.3.1.3 Organization manufacturing feasibility

Prior to quoting a new job, BRC Marketing performs a feasibility study. Once a purchase order is received, BRC Engineering and Quality reviews the requirements related to the product during the APQP meetings. This review is with a multidiscipline group that includes Purchasing and Manufacturing:

- product requirements are defined
- contract or order requirements differing from those previously expressed are resolved, and BRC has the ability to meet the defined requirements

BRC has planned and developed the processes needed for product manufacturing feasibility that is consistent with the requirements of the other processes of the quality management system. In planning manufacturing feasibility, BRC has determined the following, as appropriate:

- **quality objectives and requirements for the product**
- **the need to establish processes, documents, and provide resources specific to the product**
- **required verification, validation, monitoring, inspection and test activities specific to the product and the criteria for product acceptance**
- **records needed to provide evidence that the realization processes and resulting product meet requirements**

Customer requirements and references to its technical specifications have been included in the planning manufacturing feasibility as a component of the quality plan.

Acceptance criteria has been defined and where required, approved by the customer. For attribute data, the acceptance level is zero defects.

BRC has a process to control, react and measure changes that impact product realization. The effects of any change, including those changes caused by any supplier, have been addressed and verification and validation activities are defined to ensure compliance with customer requirements. Changes are validated before implementation.

For proprietary designs, impact on form, fit and function are reviewed with the customer so that all effects can be properly evaluated.

8.2.3.2

BRC maintains records of the results of the customer specific requirements review and actions arising from the review. Where the customer provides no documented statement of requirement, the customer requirements are confirmed by BRC before acceptance.

8.2.4 Changes to requirements for products and services.

BRC has a process to control, react and measure changes that impact product and services. The effects of any change, including those changes caused by any supplier, will be addressed and verification and validation activities are defined to ensure compliance with customer requirements. Changes are validated and documented before implementation.

8.3 Design and development for products and services

8.3.1 General

Product design is not applicable to BRC. BRC Engineering Group works with the customer as needed during development & APQP Process. The process design is the responsibility of the manufacturing location.

8.3.2.3 Development of products with embedded software

Embedded software does not apply to BRC at this time, as there are no product lines that includes embedded software.

Prior to quoting a new job, Marketing performs a feasibility study. Once a purchase order is received, BRC Engineering and Quality reviews the requirements related to the product during the APQP meetings. This review is with a multidiscipline group that includes Purchasing and Manufacturing:

- **product requirements are defined**
- **contract or order requirements differing from those previously expressed are resolved, and BRC has the ability to meet the defined requirements**

Note: In some situations such as internet sales, a formal review is impractical for each order. Instead, the review can cover relevant production information, such as catalogues.

8.3.3 Design and development inputs

Product design is not applicable to BRC. BRC Engineering Group works with the customer as needed during development & APQP Process. The process design is the responsibility of the manufacturing location.

8.3.3.2 Manufacturing process design input

BRC identifies,documents and reviews manufacturing process design input requirements, including but not limited to the following;

- product design output data including special characteristics;
- targets for productivity, process capability, timing and cost;
- manufacturing technology alternatives;
- customer requirements, if any;
- experience from previous developments;
- new materials;
- product handling and ergonomic requirements; and
- design for manufacturing and design for assembly;

BRC utilizes error proofing methods when feasible and are based on magnitude of potential risk.

8.3.3.3 Special characteristics

BRC identifies special characteristics and includes all special characteristics in the control plan and complies with customer-specified definitions and symbols, and identifies process

control documents including drawings, FMEAs, control plans, and operator instructions with the customer's special characteristic symbol or BRC's equivalent symbol or notation to include those process

BRC uses multidisciplinary approach to establish, document and implement our process to identify special characteristics, including those determined by the customer and the risk analysis performed by BRC and shall include the following

- customer requirements (contract review) such as special characteristics, identification, traceability and packaging;
- use of information: BRC will have a process to deploy information gained from previous design projects, competitor analysis, supplier feedback, internal input, field data, and other relevant sources, for current and future projects of a similar nature;
- targets for product quality, life reliability, durability, maintainability, timing and cost;
- development of control and monitoring strategies for special characteristics of products and production processes;
- customer specified approvals, when required;
- compliance with customer specified definitions and symbols or BRCs equivalent symbols or notations, as defined in a symbol conversion table. The symbol conversion table shall be submitted to the customer, if required;

8.3.4 Design and development controls

Product design is not applicable to BRC. BRC Engineering Group works with the customer as needed during development & APQP Process. The process design is the responsibility of the manufacturing location.

BRC identifies documents and reviews requirements, including the following:

- **customer requirements (contract review) such as special characteristics, identification, traceability and packaging**
- **use of information: BRC will have a process to deploy information gained from previous projects, competitor analysis, supplier feedback, internal input, field data, and other relevant sources, for current and future projects of a similar nature**
- **targets for product quality, life reliability, durability, maintainability, timing and cost**

BRC identifies documents and reviews the manufacturing process design input requirements including:

- **product output data**
- **targets for productivity, process capability and cost**
- **customers' requirements, if any, and experience from previous developments**

BRC identifies special characteristics and:

- **include all special characteristics in the control plan and comply with customer-specified definitions and symbols, and identify process control documents including drawings, FMEAs, control plans, and operator instructions with the customer's special characteristic symbol or BRC's equivalent symbol or notation to include those process steps that affect special characteristics (can include product characteristics and process parameters)**

8.3.4.1 Monitoring
Measurements at specified stages during the design and development of processes shall be defined, analyzed, and reported with summary results as an input to the management review (see section 9.3.2.1).

When required by customer, measurements of the product and process development activity shall be reported to the customer at all stages specified and agreed to by the customer and BRC.

Note: When appropriate, the measurements may include quality risks, costs, lead times, critical paths, and other measurements.

The outputs of product and development are provided in a form that enables verification against the development input and will be approved prior to release.

8.3.4.2. Design and development validation
Product validation shall be performed in accordance with customer requirements, including any applicable industry and governmental agency-issued regulatory standards. The timing of product validation shall be planned in alignment with customer-specified timing, as applicable. BRC Engineering is not design responsible, BRC only assist customer when requested.

When BRC has contractually agreed with customer, this shall include evaluation of the interaction of the BRC product, including embedded software if applicable, within the system of final customer's product.

8.3.4.3 Prototype programme
When required by the customer, BRC has a prototype program and control plan. Whenever possible, BRC uses the same suppliers, tooling and manufacturing processes as used in production.

All performance-testing activities shall be monitored for timely completion and conformity to requirements.

When services are outsourced, BRC includes the type and extent of control in the scope of the quality management system to ensure that outsourced services conform to requirements. (see ISO 9001, section 8.4)

8.3.4.4 Product approval process

BRC has established, implemented and maintain a product and manufacturing process conforming to requirements defined by the customer (s).

BRC conforms to a product and manufacturing process approval procedure recognized by the customer (PPAP). This product and manufacturing (PPAP) process approval procedure also applies to suppliers.

BRC shall obtain external approval from customer prior to shipping, if required by customer. Records of approval are retained.

Note: Product approval should be subsequent to the verification of manufacturing process.

8.3.5. Design and development outputs

The outputs of product development are provided in a form that enables verification against the product development inputs and will be approved prior to release.

Product development outputs:

- **meet the input requirements for product development;**
- **provide appropriate information for purchasing, production and for service provision;**
- **contain or reference product acceptance criteria, and specify the characteristics of the product that are essential for its safe and proper use;**
- **include requirements related to preservation;**

Note: **Product design is not applicable to BRC. BRC Engineering Group works with the customer as needed during development & APQP Process.**

8.3.5.2 Manufacturing process design output

The BRCs manufacturing process design output is expressed in terms that can be verified against manufacturing process design input requirements and validated. The manufacturing process design output includes:

- specifications and drawings
- special characteristics for product and manufacturing process;
- indentification of process input variables that impact characteristics
- tooling and equipment for production and control, including capability studies of equipment and process;
- manufacturing process flow chart/layout, including linkage
- of product,
    - process
    - tooling;
    - capacity analysis
- manufacturing process FMEAs
- capacity analysis
- maintenance plans and instructions
- control plan
- work instructions

- process approval acceptance criteria
- data for quality, reliability, maintainability and measurability;
- results of error proofing identification and verification as appropriate;
- methods of rapid detection and feedback of product/manufacturing process nonconformities;

8.3.6 Design and development changes
BRC has implemented a process to identify, review and control changes made during, or subsequent to, the development of products and services, to the extent necessary to ensure that there is no adverse impact on conformity to requirements.

Design and development changes are identified and records maintained. The changes are reviewed, verified and validated, as appropriate, and approved before implementation. The review of product development changes includes the evaluation of the effect of the changes on constituent parts and product already delivered. Records of the results of the review of changes and any necessary actions are maintained.
Note: BRC is not design responsible, but will assist the customer if requested.

8.3.6.1 Design and development changes --- supplemental
BRC evaluates all design changes after initial product approval, including any proposed by BRC or our suppliers.

8.4 Control of externally provided processes, products and services

8.4.1 General
BRC ensures that externally provided processes, products and services conform to all process, product requirements.

- **Products and services from external providers are intended for incorporation into BRCs own products and services;**
- **Products and services are provided direction to the customer(s) by external providers on behalf of BRC;**
- **A process, or part of a process, is provided by an external provider as a result of a decision by BRC;**

BRC evaluates and selects suppliers based on their ability to supply products in accordance with BRC and customer requirements. Criteria for selection, third party registered or evaluation, re-evaluation as established. Records of the results of evaluations and any necessary actions arising from the evaluation are maintained.

All purchased products or materials used in product conform to applicable regulatory requirements.

8.4.1.1 General ---supplemental

BRC includes all products and services that affect customer requirements such as sub-assembly, sequencing, sorting, rework, and calibration services in the scope of our external supplier selection.

8.4.1.2 Supplier selection process
BRC has a documented process for selecting suppliers, which include;

- **an assessement of the selected supplier's risk to product conformity and uninterrupted supply of product to BRC and our customer;**
- **relevant quality and delivery performance;**
- **an evaluation of the suppliers quality management system;**
- **multidisciplinary decision making; and**
- **an assessment of software development capabilities, if applicable.**

Other supplier selection criteria that BRC may take into consideration include the following'

- **volume of automotive business (absolute and as a percentage of total business)**
- **financial stability;**
- **purchased product, material, or service complexity;**
- **required technology (product or process);**
- **adequacy of available resources (e.g., people, infrastructure);**
- **design and development capabilities (including project management);**
- **manufacturing capability;**
- **change management process;**
- **business continuity planning (e.g., disaster preparedness, contingency planning);**
- **logistics process;**
- **customer service;**

8.4.1.3 Customer-directed sources, also known as ("Direct-Buy")
When specified by the customer, BRC purchases products, materials, or services from a customer directed source.

All requirements of section 8.4 (except the requirements of IATF 16949, section 8.4.1.2)
All applicable to BRC control of customer-directed sources, unless specific agreements are otherwise defined by the contract between the organization and the customer.

8.4.2 Type and extent of control
BRC ensures that externally provided processes, products and services do not adversely affect BRCs ability to consistently deliver conforming products and services to our customers.

BRC shall;

- **ensure that externally provided processes remain within the control of our quality management system;**

- **define the controls that BRC intends to apply to our suppliers and those that it intends to apply to the resulting output;**
- **take into consideration:**
    1) **the potential impact of externally provided processes, products, and services on BRC's ability to consistently meet customer and applicable statutory and regulatory requirements;**
    2) **the effectiveness of the controls applied by the external supplier.**
- **determine the verification, or other activities, necessary to ensure that the supplier provides processes, products and services that meet all requirements.**

8.4.2.1 Type and extent of control –supplemental
BRC has a documented process to identify outsourced processes and to select the types and extent of controls used to verify conformity to externally provided products, processes, and services to internal (BRC) and external customer requirements.

BRC ensures that purchased product conforms to specified purchase requirements. The type and extent of control applied to the supplier and the purchased product is dependent upon the effect of the purchased product on subsequent product realization or the final product.

8.4.2.2 Statutory and regulatory requirements
BRC ensures that all purchased products or materials used in product conform to applicable statutory and regulatory requirements for the country of receipt

If customer should define special controls for certain products with statutory and regulatory requirements, BRC ensures they are implemented and maintained as defined, including at suppliers.

8.4.2.3 Supplier quality management system development
BRC evaluates and selects suppliers based on their ability to supply products in accordance with BRC and customer requirements. Criteria for selection, third party registered or evaluation, re-evaluation as established. Records of the results of evaluations and any necessary actions arising from the evaluation are maintained.

All purchased products or materials used in the product conform to applicable regulatory requirements.

BRC requires its suppliers of automotive products and services to develop, implement and improve a quality management system certified to ISO9001, unless authorized by the customer, with the ultimate objective of becoming certified to IATF16949. Compliance with ISO 9001 is the first step in achieving this goal. Unless otherwise specified by the customer, direct material suppliers to BRC are third party registered to ISO 9001 by an accredited third-party certification body or evaluated and approved by BRC Purchasing and Quality.

Where specified by the contract, BRC will purchase products, materials or services from approved sources. The use of customer-designated sources, including tool and gage suppliers, does not relieve BRC of the responsibility for ensuring the quality of purchased products.

Purchasing information describes the product to be purchased, including where appropriate:

- requirements for approval of product, procedures, processes and equipment
- requirements for qualification of personnel, and
- quality management system requirements

BRC ensures the adequacy of specified purchase requirement prior to their communication to the supplier

BRC establishes and implements the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements.

Where BRC or its customer intends to perform verification at the supplier's premises, BRC states the intended verification arrangements and method of product release in the purchasing information.

BRC has a process to assure the quality of purchased product utilizing one or more of the following methods:

8.4.2.3.1 Automotive product-related software or automotive products with embedded software.

BRC requires our suppliers of automotive product related software, or automotive products embedded with software, to implement and maintain a process for software quality assurance for product supplied to BRC.

A software assessment methodology shall be utilized to assess the suppliers' software development process. Using prioritization based on risk and potential impact to the customer, BRC requires that the supplier retain documented information of the software development capability self-assessment.

8.4.2.4 Supplier Monitoring

BRC has a documented process and criteria to evaluate supplier performance in order to assure the quality of purchased product, processes and services utilizing one or more of the following methods:

- receipt of, and evaluation of, statistical data
- receiving inspection and/or testing such as sampling based on performance
- second- or third-party assessments or audits of supplier sites, when coupled with records of acceptable delivery product quality
- part evaluation by a designated laboratory
- another method agreed with the customer

Supplier performance is monitored through the following indicators:

- delivery product quality
- customer disruptions including field returns
- delivery schedule performance (including incidents of premium freight)
- special status customer notifications related to quality or delivery issues
- dealer returns, warranty, field actions and recalls.

8.4.2.4.1 Second party audits

BRC includes second party audit process in our supplier management approach.
Second party audits may be used for the following;

- supplier risk assessment;
- supplier monitoring;
- supplier QMS development;
- product audits;
- process audits;

Based on risk analysis, including product safety / regulatory requirements, performance of the supplier, and QMS certification level, at a minimum, BRC will document the criteria for determining the need, type, frequency, and scope of second party audits

BRC maintains records of second party audit reports

If the scope of second party audit is to assess the suppliers quality management system, then the approach shall be consistent with the automotive process approach.

Note: Guidance may be found in the IATF Auditor Guide and ISO 9001.

8.4.2.5 Supplier development

BRC has determined the priority, type, extent and timing of required supplier development actions for our active suppliers. Inputs to this process are not limited to the following;

- performance issues identified through supplier monitoring;
- second party audit findings (see section 8.4.2.4.1)
- third party quality management system certification status
- risk analysis

BRC implements actions needed to resolve open (unsatisfactory) performance issues and pursue opportunities for continual improvement.

8.4.3. Information for external providers

BRC ensures the adequacy of requirements prior to our communication with external providers.

BRC communicates to external providers our requirements for;

- The processes, products and services to be provided;
- The approval of
    1. Products and services

2. Methods, processes and equipment;
3. The releases of products and services.

- The availability of documented information that defines
- Competence, including any required qualifications of persons;
- Required interactions with BRC
- Control and monitoring of external providers' performance to be applied by BRC
- Verification or validation activities that BRC, or our customer, intends to perform at the external providers facilities or required from external provider.

8.4.3.1 Information for external providers – supplemental
BRC provides all applicable statutory and regulatory requirements and special product and process characteristics to our supplier and require the suppliers to cascade all applicable requirements down the supply chain to the point of manufacture.

8.5 Production and service provision

8.5.1 Control of production and service provision

BRC carries out production and service provision under controlled conditions. Controlled conditions include, as applicable:

- **the availability of information that describes the characteristics of the product**
- **the availability of work instructions, as necessary**
- **the use of suitable equipment**
- **the availability and use of monitoring and measuring devices**
- **the implementation of monitoring and measurement, and**
- **the implementation of release, delivery and post-delivery activities.**

BRC develops control plans for the product supplied. The control plans will be developed pre-launch, prototype and production. The control plan is developed in accordance to annex A of the IATF 16949 standards.

BRC if required by customer, provides measurements and conformity data that is collected during execution of either the prelaunch or production control plans. BRC will include in the control plan:

- **controls used for the manufacturing process control, including verification of job set ups;**
- **first off / last off part validation, as applicable;**
- **methods for monitoring of controlled exercised over special characteristics (ref. Annex A) defined by both the customer and/or BRC;**
- **the customer required information;**
- **specified reaction plan (see Annex A); when nonconforming product is detected, the process becomes statistically unstable or not statistically capable.**

Key process equipment is identified and resources provided for machine/equipment maintenance. As a minimum preventive maintenance includes:

- **planned maintenance activities**
- **packaging and preservation of equipment, tooling and gauging**
- **availability of replacement parts for key manufacturing equipment**
- **documenting, evaluating and improving maintenance objectives**

Predictive maintenance methods are utilized to continually improve the effectiveness and efficiency of production equipment.

BRC has established and implemented a system for production tooling management including:

- **maintenance and repair facilities and personnel**
- **storage and recovery**
- **set-up**
- **tool design modification documentation, including engineering change level**
- **tool modification and revision to documentation**
- **tool identification, defining the status, such as production, repair or disposal**

Production has been scheduled in order to meet customer requirements, such as just-in-time supported by an information system that permits access to production information at key stages of the process and is order driven.

BRC does not have a service agreement with any customers. If and when applicable, service concerns will be addressed on the Quality Concern form. When completed, the form is copied to engineering, manufacturing and quality as well as other appropriate personnel.

BRC validates all processes for production and service provision where the resulting output cannot be verified by subsequent monitoring or measurement. This includes any processes where deficiencies become apparent only after the product is in use. Validation demonstrates the ability of these processes to achieve planned results. BRC has established arrangements for these processes including as applicable:

- **defined criteria for review and approval of the processes**
- **approval of equipment and qualification of personnel**
- **use of specific methods and procedures**
- **requirements of records, and revalidation**

BRC will review control plans, and update as required for any of the following;

- **BRC should determine that we have shipped nonconforming product to the customer;**
- **when any changes occur affecting product, manufacturing process, measurement;**
- **logistics, supply sources, production volume changes, or risk analysis, (FMEA) (see Annex A);**

If required by the customer, BRC will obtain customer approval after review or any revision of the control plan.

8.5.1.1 Control Plan
BRC develops control plans in accordance with Annex A, at the system, subsystem, component, and/ or material level for the relevant manufacturing site and all products supplied, including those for processes producing bulk materials as well as parts.
Family control plans are acceptable for bulk material and similar parts, using the common manufacturing process.

BRC utilized control plan for prelaunch and production that shows the linkage and incorporates information from the design risk analysis (if provided by the customer), process flow diagram and manufacturing process risk analysis outputs (such as FMEA)

If required by the customer, BRC provides measurement and conformity data collected during implementation of either a prelaunch or production control plan.
BRC includes in the control plan the following;

- controls used for manufacturing process control, including verification of job set-up;
- first-off / last-off part validation, as applicable;
- methods for monitoring of control over special characteristics (see Annex A) defined by customer and BRC;
- the customer required information, if any;
- special reaction plan (see Annex A); when nonconforming product is detected, the process becomes statistically unstable or not statistically capable;

BRC reviews and updates as required for any of the following;

If BRC determines it has shipped nonconforming product to the customer or if any changes occurs that affects the product, manufacturing process, measurement, logistics, supply source, production volume changes, or risk analysis (FMEA) (see Annex A); or after a customer complaint and implementation of the corrective action, if applicable; or at a set frequency based on risk analysis;

BRC will contact customer for approval if required by the customer, after review and any changes.

8.5.1.2 Standardized work – operator instructions and visual standards
BRC develops documented work instructions for all employees having
responsibilities for the operation of processes that impact product quality. The work instructions are derived from documents such as the quality plan, control plan and other product realization process. These documents are;

- communicated to and understood by the employee who has responsibility for performing the work
- legible
- presented in a language (s) that is understood by personnel responsible to follow them;

- accessible for use at the designated work area (s)

The standardized work also includes rules for operator safety.

8.5.1.3 Verification of job set-ups
BRC has a process in place for job set up verification, which we call first run and last run verification. These are performed per the following guidelines;

- **verify job set up when performed, such as initial run of a job, material changeover or job change that requires a new set up;**
- **BRC has and maintains documented information for set up personnel;**
- **when applicable BRC uses statistical methods of verification;**
- **First/Last run is performed as applicable, and first off parts should be retained for comparison to the last run and the last run parts should be maintained for comparison to the next first run.**
- **records of first and last off verification are maintained for the product approval and validations, according to BRC's record retention process.**

8.5.1.4 Verification after shutdown
BRC has a Plant Start up after Extended Shut down process in place for verification of the product meeting all requirements after extended shut down,

8.5.1.5 Total productive maintenance
BRC has a documented process in place for total productive maintenance system.

At a minimum, BRC includes;

- Identification of process equipment necessary to produce conforming product at the required volume;
- Availability of replacement parts for the equipment, and facility maintenance
- Provision of resources for machine, equipment, and facility maintenance;
- Packaging and preservation of equipment, tooling, and gauging;
- Applicable customer-specified requirements
- Documented maintenance objectives, for example: OEE (Overall equipment effectiveness), MTBF (Mean Time Between Failure), and MTTR (Mean Time to Repair), and Preventive Maintenance compliance metrics. Performance to the maintenance objectives shall form and input to management review. (see ISO 9001, Section 9.3) ;
- Regular review of maintenance plan and objectives and documented action plan to address corrective actions where objectives are not achieved;
- Use of preventive maintenance methods, as applicable;
- Use of predictive maintenance methods, as applicable
- Periodic overhaul.

8.5.1.6 Management of production tooling and manufacturing, test, inspection tooling and equipment

BRC provides resources for the tool and gage design, fabrication and verification activities for production and service materials and for bulk materials, as applicable.

BRC has established and implemented a system for production tooling management including:

- maintenance and repair facilities and personnel
- storage and recovery
- set-up
- tool design modification documentation, including engineering change level
- tool modification and revision to documentation
- tool identification, defining the status, such as production, repair or disposal, ownership and location;

BRC verifies that customer owned tools, manufacturing equipment, and test / inspection equipment are permanently marked in a visible location, so that the ownership and application of each item can be determined.

BRC monitors these activities for any work that is outsourced.

8.5.1.7 Production Scheduling
BRC has established process for production scheduling in order to meet customer requirements, such as just-in-time supported by an information system that permits access to production information at key stages of the process and is order driven.

BRC includes relevant planning information during the production scheduling, e.g., customer orders, supplier on time delivery performance, capacity, shared loading (multi-part station), lead time, inventory level, preventive maintenance, and calibration.

8.5.2 Identification and traceability
BRC has a process in place to identify outputs when it is necessary to ensure conformity of products and services.

BRC has identified the status of the outputs with respect to monitoring and measurement requirements throughout production and service provisions.

BRC controls the unique identification of the outputs, when traceability is a requirement and shall retain documented information necessary to enable traceability.

8.5.2.1 Identification and traceability – supplemental
BRC has established and implemented a process for identification of clear start and stop points for product received by customer or in the field that may contain quality and /or safety-related nonconformities.

BRC conducts an analysis of internal, customer, and regulatory traceability requirements for all automotive products, including developing and documenting the plans for traceability, based on the levels of risk severity for employees, customers, and consumers. The

traceability plan defines the appropriate systems, processes, methods by product process and manufacturing location:

- enable BRC to identify nonconforming and/or suspect product;
- enable BRC to segregate nonconforming and / or suspect product;
- enable BRC the ability to meet the customer and/or regulatory response time requirements;
- ensure that documented information is maintained in the format (electronic, hardcopy, archive) that allows BRC to meet response time;
- ensures the identification and traceability requirements are extended to externally provided products with safety / regulatory characteristics.

8.5.3 Property belonging to customers or external providers
BRC exercises care with customer property while it is under the control or being used by BRC.

BRC identifies, verifies, protects and safeguards customers' or external providers' property that is provided for use or incorporated into the products or service. If any customer property is lost, damaged or otherwise found to be unsuitable for use, it is reported to the customer and records maintained. (Customer property includes intellectual property.)

Property may include personal data (e.g. social security numbers).

Customer-owned tools, manufacturing, test, inspection tooling and equipment is permanently marked so that the ownership of each item can be determined.

8.5.4 Preservation
BRC preserves the conformity of product during internal processing and delivery to the intended destination. Preservation also applies to the constituent parts of the product.

The condition of product in stock is assessed at appropriate planned intervals in order to detect deterioration. First-in-first-out (FIFO) is used as an inventory management system to optimize inventory turns over time and assure stock rotation. Obsolete products are controlled in a similar manner to nonconforming product.

8.5.4.1 Preservation –supplemental
The preservation includes identification, handling, contamination control, packaging, storage, transmission or transporation, and protection.

Preservation applies to materials and components from external and/or internal providers from receipt through processing, including shipment and until delivery to/acceptance by the customer.

In order to detect deterioration, BRC has a process in place that allows us to assess at appropriate planned intervals the condition of the product in stock, the place,the place/type of storage container, and the storage envrionment.

BRC has a process in place to ensure that obsolete product is controlled in a manner similar to that of non-conforming product.

BRC complies with perservation,packaging,shipping and labeling requirements as provided by our customers.

8.5.5 Post-delivery activities

BRC will meet requirements for post-delivery activities that are associated with products and services. In determining the extent of post-delivery activities, BRC will consider the following at a minimum.

- **statutory and regulatory requirements;**
- **the potential undesired consequences associated with its products and services;**
- **the nature, use and intended lifetime of its products and services;**
- **customer requirements;**
- **customer feedback**
- **requirements specified by the customer, including the requirements for delivery and post-delivery activities**
- **requirements not stated by the customer but necessary for specified or intended use, where known**
- **any additional requirements determined by BRC**

8.5.5.1 Feedback of information from service

BRC ensures that if and when applicable service concern should occur, the concern will be communicated on the Quality Concern form and copied to the engineering, manufacturing groups and all quality as well as other appropriate personnel.

Service concerns include the results of field failure test analysis (see Section 10.2.6) where applicable.

8.5.5.2 Service agreement with customer

BRC has limited service agreements with our customers, but BRC shall

Verify that the relevant service centers comply with applicable requirements;
Verify the effectiveness of any special purpose tools or measurement equipment;
Ensure that all service personnel are trained in applicable requirements.

8.5.6 Control of Changes

BRC has a process in place to review and control any changes for production or service provisions, to the extent necessary to ensure continued conformity to requirements.

BRC retains documented information describing the results of review of the changes, the person(s) authorizing the change, and any necessary actions arising from the review.

8.5.6.1 Control of changes – supplemental

BRC has a documented process to control, and react to changes that impact product realization. The effects of the changes, including changes caused by BRC, the customer or any supplier, will be assessed.

BRC will:

- define the verification and validation activities to ensure compliance with customer requirements;
- validate changes before implementation;
- document evidence of related risk analysis;
- Retain records of the verification and validation.

Changes including those made at a suppliers, should require a production trial run for verification of the changes, (such as change to part design, manufacturing location, or manufacturing process) to validate the impact of any changes on the manufacturing process.

If required by the customer, BRC shall,

- Notify the customer of any planned product realization changes after the most recent product approval;
- Obtain documented approval, prior to implementation of the changes
- Complete additional verification or identification requirements, such as production trial run and new product validation.

8.5.6.1.1 Temporary change of process controls
BRC has a documented process in place to identify, document, and maintain a list of the process controls, including inspection, measuring, test and error proofing devices, that includes the primary process control and the approved back up or alternate methods.

BRC has a deviation process in place to track temporary changes within the process that may or may not require customer approval as well as appropriate BRC internal approvals. Included in this is a risk assessment prior to internal approvals and implementation of alternate methods.

Before release of product for shipment that was inspected or tested in alternate method, if required BRC will obtain customer approval. BRC will maintain a list and review periodically the list of alternate approved control methods that are referenced in the control plan.

Standard work instructions will be implemented for each alternate process control method and BRC will review the operation of the alternate process control per agreed upon validation process, this is to to verify implementation of standard work with the goal to return to the standard process as defined by the control plan as soon as is feasible. Example of methods may include but not limited to the following.

- Daily quality focused audits (e.g., layered process audits, as applicable);
- Daily leadership meetings.

Re-implementation of normal process control is documented for a defined period based on the severity and validation that all features of the error-proofing device or process are effectively reinstated.

All product produced while using an alternate process control devices or process, will have traceability. (e.g., verification and retention of first piece &/or last piece inspection.)

8.6 Release of products and services

BRC has implemented planned arrangements at the appropriate stages to verify that product and service requirements are being met. Until planned arrangements are met, product cannot be released, unless otherwise approved by relevant authority and the customer if applicable.

Documentation will be retained for the release of products and services, which will include;

- **evidence of conformity with acceptance criteria;**
- **traceability to the person authorizing the release;**

8.6.1 Release of products and services- supplemental

BRC ensures that the planned arrangements for verification that the product and services have been met encompass the control plan and are documented as specified in the control plan (see Annex A).

BRC ensures that the planned arrangements for initial release of products or services encompass product and service approval, BRC will also ensure that product or service approval is accomplished after changes following initial release, according to ISO 9001, Section 8.5.6.

8.6.2 Layout inspection and functional testing

A layout inspection and a functional verification to applicable customer engineering material and performance standards is performed for each product as specified in the control plans. Results are available for customer review.

Note 1: Layout inspection is the complete measurement of all product dimensions shown on the blue print and product validation requirements.

Note 2: The frequency of layout inspection is determined by the customer.

8.6.3 Appearance items

All products that have been designated by customer as an “appearance items” BRC will provide the following;

- appropriate resources including lighting for evaluation
- masters for color, grain, gloss, metallic brilliance, texture, distinctness of image (DOI) and haptic technology, as appropriate

- maintenance and control of appearance masters and evaluation equipment;
- verification that personnel making appearance evaluations are competent and qualified to do so.

8.6.4 Verification and acceptance of conformity of externally provided products and services
BRC has an established process to ensure the quality of externally provided processes, or products utilizing one of the following;

- Receipt and evaluation of statistical data provided by the supplier to BRC;
- Receiving inspection and/or testing, such as sampling based on performance;
- Second party or third party assessments, or audits of supplier sites when coupled with records of acceptable delivered product conformance to all requirements.
- Part evaluation by designated laboratory.
- Another method agreed with the customer.

8.6.5 Statutory and regulatory requirements

Prior to releasing externally provided products into the production flow, BRC will confirm and be able to provide evidence that external processes, products and services conform to the latest applicable statutory, regulatory and other requirements in the country where they are manufactured and customer identified countries of destination if provided.

8.6.6 Acceptance criteria
BRC defines acceptance criteria for all product and processes and where appropriate BRC obtains approval from the customer. For attribute data sampling the acceptance level is zero defects (see Section 9.1.1.1).

8.7 Control of nonconforming outputs

8.7.1 BRC has a process established and implemented to ensure that the outputs that do not conform to their requirements are identified and controlled to prevent unintended use or delivery.

The controls and related responsibilities and authorities for dealing with nonconforming product are defined in a documented procedure.

Nonconforming outputs are addressed by one or more of the following ways:

- **by taking action to eliminate the detected nonconformity**
- **by segregation, containment, return or suspension of provision of product and services;**
- **by authorizing its use, release, or acceptance under concession by a relevant authority and, where applicable, by the customer**
-

Conformity to the requirements are verified when nonconforming outputs are corrected.

8.7.1.1 Customer authorization for concession

Customer concession or deviation permit is obtained prior to further processing whenever the product or manufacturing process is different from that which is currently approved. Records are maintained of the expiration date or quantity authorized. When the deviation expires, the product complies with the customer requirements. Material shipped on an authorization is properly identified on each shipping container.

BRC will obtain authorization to further process for “use as is” and rework dispositions of nonconforming product. If sub-components are reused in the manufacturing process, it will be communicated to the customer in the concession or deviation permit.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, are maintained. When nonconforming product is corrected, it is subject to re-verification to demonstrate conformity to the requirements. When nonconforming product is detected after delivery or use has started, action appropriate to the effects of the nonconformity is taken.

8.7.1.2 Control of nonconforming product – customer specified process.
BRC will comply with applicable customer specific controls for nonconforming product (s).

8.7.1.3 Control of suspect product
Product with unidentified or suspect status is classified as nonconforming (or suspect) product and is treated as nonconforming product. BRC ensures that all manufacturing personnel are trained for the containment of suspect and nonconforming product.

8.7.1.4 Control of reworked product
BRC will utilize risk analysis (such as FMEA) methodology to assess risk in the rework process prior to approving product for rework. If required by customer, BRC will obtain approval from customer prior to reworking of the product.

Instructions for rework, including re-inspection requirements and traceability
requirements are accessible to and utilized by the appropriate personnel.

BRC will retain documented information on the disposition of reworked product including quantity, disposition, disposition date and applicable traceability information.

8.7.1.5 Control of repaired product
BRC will utilize risk analysis (such as FMEA) methodology to assess risk in the repair prior to approving product for repair. If required by customer, BRC will obtain approval from customer prior implementing repair process.

Instructions for repair requirements and traceability requirement are accessible to and utilized by the appropriate personnel.

Instructions for disassembly or repair, including re-inspect and traceability, shall be accessible to and utilized by the appropriate personnel.
Customer concession or deviation is obtained prior to further processing.

8.7.1.6 Customer notification
Customers are informed promptly in the event that nonconforming product has been shipped. Initial communication will be followed by documented detail of the event.

8.7.1.7 Nonconforming product disposition
BRC has an established process which is implemented for the disposition of nonconforming product that is not subject to rework or repair. Product that does not meet requirements established will be scrapped &/or disposed of. BRC will not divert nonconforming product to service or other use without prior customer approval.

8.7.2 BRC will retain the documented information for the nonconforming product that:

- Describes the nonconformity;
- Describes actions taken;
- Describes any concessions obtained;
- Identifies the authority deciding the action in respect of the nonconformity

9.0 Performance evaluation
9.1 Monitoring, measurement, analysis and evaluation
9.1.1 General
BRC determines

- **What needs to be monitored and measured;**
- **The methods of monitoring, measurement, analysis and evaluation needed to ensure valid results;**
- **When monitoring and measuring shall be performed;**
- **When the results from the monitoring and measurements will be analyzed and evaluated.**

BRC evaluates the performance and effectiveness of the quality management system maintaining appropriate documented information as evidence of results.

9.1.1.1 Monitoring and measurement of manufacturing processes
BRC performs process studies on all new manufacturing processes to verify process capability and to provide additional input for process control. The results of the process studies are documented with specifications, where applicable, for means of production, measurement and test, and maintenance instructions. These documents include objectives for manufacturing process capability, reliability, maintainability and availability, as well as acceptance criteria.

BRC maintains manufacturing process capability or performance as specified by the customer approval process requirements. Control plans and process flow diagrams are implemented, including adherence to the specified:

- measurement techniques;
- sampling plans;
- acceptance criteria;
- records of actual measurement values and/or test results for variable data;
- reaction plans when acceptance criteria are not met

Significant process events, such as tool change or machine repair are recorded.

Reaction plans are initiated from the control plan for characteristics that are either not statistically capable or are unstable. The reaction plans include containment of product and 100% inspection as appropriate. A corrective action plan is completed indicating specific timing and assigned responsibilities to assure that the process become stable and capable. The plans are reviewed and approved by the customer when required. Records are maintained of effective dates of process changes.

9.1.1.2 Identification of statistical tools
BRC determines the appropriate use of statistical tools during the APQP process and are included in design risk (DFMEA) when available and process risk analysis (PFMEA)

9.1.1.3 Application of statistical concepts
Basis statistical concepts, such as variation, control (stability); process capability and over-adjustment are understood and utilized throughout BRC.

9.1.2 Customer satisfaction
BRC monitors information relating to customer perception as to whether the customer requirements have been met.

9.1.2.1 Customer satisfaction – supplemental
Customer satisfaction is monitored through the continuous evaluation of internal and external performance indicators to ensure that BRC is compliant to the product and process specification and other customer requirements.

Monitored through our BOS / QOS are the following measurables.

- delivered part- quality performance
- customer disruptions
- including field returns, recalls, and warranty (where applicable)
- delivery schedule performance (including incidents of premium freight), and
- customer notifications related to quality or delivery issues.
- customer surveys

9.1.3 Analysis and evaluation
Customer satisfaction with BRC is monitored through continual evaluation of performance of the realization processes. Performance indicators are based on objective data and include, but not limited to:

Results of analysis shall be used to evaluate

- **Conformity of products and service;**
- **The degree of customer satisfaction;**
- **The performance and effectiveness of the quality management system;**

- **If planning has been implemented effectively;**
- **The effectiveness of actions taken to address risks and opportunities;**
- **The performance of external providers;**
- **The need for improvements to the quality management systems;**

Note: Methods to analyze data can include statistical techniques.

Also include but not limited to is the following

- delivered part quality performance
- customer disruptions including field returns
- delivery schedule performance (including incidents of premium freight), and
- customer notifications related to quality or delivery issues.
- customer surveys

BRC monitors the performance of manufacturing processes to demonstrate compliance with customer requirements for produce quality and efficiency of the process.

9.1.3.1 Prioritization

Trends in quality and BRCs performance will be compared with progress towards objectives and lead to action to support prioritization of actions for improving customer concerns.

9.2 Internal Audits

9.2.1

Audits are conducted at planned intervals to provide information on whether the quality management system:

Conforms to

- **BRC's own requirements for our quality management system;**
- **The requirements of this internal standard;**
- **Customer specific requirements and;**
- **Is effectively implemented and maintained;**

Internal audit process is prioritized based upon risk, internal and external performance trends and criticality of the process (es)

9.2.2 BRC has:

- **Planned, established, implemented and maintained an audit process, including frequency, methods, responsibilities, planning requirements and reporting, which shall take into consideration the importance of the processes concerned, changes affecting BRC and the results of the previous audits;**
- **Define the audit criteria and scope for each audit;**
- **Select auditors and conduct audits to ensure objectivity and impartiality of the audit process;**
- **Ensure that the results of the audit are reported to relevant management;**
- **Take appropriate correction and corrective actions without undue delay;**

- **Retain documented information as evidence of the implementation of the audit process and audit results.**

9.2.2.1 Internal audit programme
BRC has established and implemented an internal audit process, that covers the entire quality management system, including the quality management system audits, manufacturing process audits, and product audits.

Internal audit process is prioritized based upon risk, internal and external performance trends and criticality of the process (es)

The internal audit program is planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods are defined. Selection of auditors and conduct of audits ensures objectivity and impartiality of the audit process. Auditors do not audit their own work.

The responsibilities and requirements for planning and conducting audits, and for reporting results and maintaining records are defined in a documented procedure.

The management responsible for the area being audited ensures that actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities include the verification of the actions taken and the reporting of verification results.

Actions deemed necessary and taken by management to address nonconformities identified during the internal audit process must follow the requirements of the corrective action process (i.e. root cause, correction and corrective action).

BRC audits the quality management system to verify compliance with ISO 9001/IATF 16949 and any additional quality management system requirements, including customer specific requirements.

BRC internal auditors are qualified to audit the requirements of ISO 9001 / IATF 16949.

9.2.2.2 Quality management system audit
BRC audits all quality management system processes over each three-year calendar period, according to an annual programme, using the process approach to verify compliance with the Automotive QMS Standard, included with these audits, BRC will sample customer specific quality management system requirements for effective implementation.

9.2.2.3 Manufacturing process audit
Each manufacturing process is audited to determine its effectiveness over each three-year calendar period, to determine their effectiveness and efficiency using customer specific requirement approach for process audits, where not defined by customer, BRC will determine the approach to be used.

Internal audits cover all quality management related processes, activities and shifts, and are scheduled to an annual plan. When internal/external nonconformities or customer complaints occur, the audit is increased.

The manufacturing process audit will include audit of the effective implementation of the process risk analysis (such as PFMEA), control plan, and associated documents.

9.2.2.4 Product audit
BRC audits product using customer specific required approaches at the appropriate stages of production and delivery to verify conformity to all specified requirements, such as dimensions, functionality, packaging and labeling, at the defined frequency. Where not defined by the customer, BRC defines the approach to be used.

9.3 Management review

9.3.1 General
BRC's top management reviews the organization's quality management system at planned intervals to ensure its continuing suitability, adequacy and effectiveness and alignment with the strategic direction of BRC. This review includes assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives. Records are retained per the record retention procedure.

The management reviews include all requirements of the quality management system and its performance trends. Part of the management review is the monitoring of quality objectives and the regular reporting and evaluation of the cost of poor quality.

9.3.1.1 Management review – supplemental
Management review is conducted at a minimum annually, the frequency of management reviews will increase based on risk to compliance with customer requirements resulting from internal or external changes impacting the quality management system and performance-related issues.

9.3.2 Management review inputs
The management review is planned and carried out taking into consideration:

- **The status of actions from previous management reviews;**
- **Changes in external and internal issues that are relevant to the quality management system;**
- **Information on the performance and effectiveness of the quality management system ,including trends;**
- **customer satisfaction and feedback from relevant interested parties;**
- **the extent to which quality objectives have been met;**
- **process performance and conformity of products and services;**
- **nonconformities and corrective actions;**

- **monitoring and measurement of objectives by reviewing gaps and actions where applicable**
- **audit results;**
- **the performance of external providers;**

Input to management review includes an analysis of actual and potential field failures and their impact on quality, safety or the environment.

9.3.2.1 Management review inputs – supplemental

- Input to management review includes
- Cost of poor quality (cost of internal and external nonconformance's)
- Measure of process effectiveness
- Measures of process efficiency
- Product conformance
- Assessments of manufacturing feasibility made for changes to existing operations and for new facilities or new product (see ISO 9001 Section 7.1.3.1);
- Customer satisfaction (see ISO 9001 Section 9.1.2);
- Review of performance against maintenance objectives;
- Warranty performance (where applicable)
- Review of customer scorecards (where applicable)
- Identification of potential field failures identified through risk analysis (such as FMEA);
- Actual field failures and their impact on safety or the environment.
- **Process risk assessments**

9.3.3 Management review and BOS review outputs

The output from the management review includes any decisions and actions related to:

- **improvement of the effectiveness of the quality management system and its processes**
- **any need for changes to the quality management system;**
- **resource needs**
- **Senior manangement will review internal objectives for conformance & consider adjustments as required.**

BRC retains documented information as evidence of the results of management reviews.

9.3.3.1 Management review outputs – supplemental

Top Management will document and implement an action plan when customer performance targets are not met.

10.0 Improvement

10.1 General

BRC continually improves the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.

BRC determines and select opportunities for improvement and implements any necessary actions to meet customer requirements and enhance customer satisfaction. These shall include;

- **improving products and services to meet requirements as well as to address future needs and expectations;**
- **correcting, preventing or reducing desired effects;**
- **improving the performance and effectiveness of the quality management system;**

Note: Examples of improvement can include correction, corrective action, continual improvement, breakthrough change, innovation and re-organization.

BRC has defined a process for continual improvement through the Quality Operating System (QOS), Business Operation System (BOS).

Manufacturing process improvements continually focus upon control and reduction of variation in product characteristics and manufacturing process parameters.

10.2 Nonconformity and corrective action

10.2.1
BRC has established a process so that when a nonconformity occurs, including any external &/or internal complaints. Action is taken to eliminate the cause of nonconformities in order to prevent recurrence.

Corrective actions are appropriate to the effects of the nonconformities encountered. A documented procedure has been established to define requirements for:

a) React to nonconformity and, as applicable:
- **take action to control and correct it;**
- **deal with consequences;**

b) evaluate the need for action to eliminate the cause (s) of the nonconformity, in order that it does not recur or occur elsewhere, by:
- **reviewing nonconformities (including customer complaints)**
- **determining the causes of nonconformities**
- **determining if similar nonconformity exist or could potentially occur;**

c) implement any actions needed
d) review effectiveness of any corrective action taken;
e) update risk and opportunities determined during planning if necessary;
f) make changes to the quality management system, if necessary;

Corrective action shall be appropriate to the effects of the nonconformities encountered.

Unless otherwise directed by a customer, BRC utilizes the 8D problem-solving approach that leads to root cause identification and elimination.

10.2.2 BRC retains documented information as evidence of:

- **the nature of the nonconformities and any actions taken;**
- **the results of the corrective action.**

10.2.3 Problem solving

BRC has a documented process for problem solving including;

- Defined approaches for various types and scale of problems (e.g. new product development, current manufacturing issues, field failures, audit findings)
- Containment, interim actions, and related activities necessary for control of nonconforming outputs (see ISO 9001 Section 8.7);
- Root cause analysis, methodology used, analysis, and results;
- Implementation of systemic corrective actions, including consideration of impact on similar processes and products;
- Verification of effectiveness of implemented corrective actions;
- Reviewing and where necessary, updating the appropriate documented information (e.g.,PFMEA, Control Plan, SOI)
- Review of risk assessment for process failure was created.

Unless otherwise directed by a customer, BRC utilizes the 8D problem-solving approach that leads to root cause identification and elimination.

10.2.4 Error Proofing

BRC has a documented process to determine the use of appropriate error proofing methodologies. Details of method used will be documented in the process risk analysis (such as PFMEA) and test frequencies are documented in the control plan.

When possible, BRC error-proofing methods are incorporate in the corrective action process. Lessons learned are applied to other similar processes and products to eliminate the potential cause of nonconformity.

Process will include the testing of the error-proofing devices for failures or simulated failures. Records will be maintained. Error proof test parts will be identified, controlled, verified and calibrated where feasible. Any error proofing failures must have a reaction plan.

10.2.5 Warranty management system

When BRC is required to provide warranty for our product(s), BRC will implement a warranty management process. BRC includes in the process a method for warranty part analysis, including NFT (no trouble found). When requested by the customer BRC will implement the warranty process.

10.2.6 Customer complaints and field failure test analysis

BRC will perform analysis on customer complaints and field failures, including any returned parts, initiating problem solving and corrective actions to prevent recurrence.

Rejected parts returned from the customer or manufacturing plants, engineering facilities and dealerships, are analyzed in a timely basis. Records of the analyses are kept and made available upon request.

If requested by customer, this shall include analysis of embedded software of BRCs' product within the system of final customer product.

BRC will communicate the results of testing / analysis to the customer and within BRC.

10.3 Continual Improvement

BRC continually improves the suitability, adequacy and effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.

BRC has defined a process for continual improvement through the Quality Operating System (QOS), Business Operation System (BOS).

BRC will consider the results of analysis and evaluation, and any outputs from management review, in order to determine if there are any needs or opportunities that can be addressed as part of the continual improvement.

Manufacturing process improvements continually focus upon control and reduction of variation in product characteristics and manufacturing process parameters.

Action is taken to eliminate the cause of nonconformities in order to prevent recurrence. Corrective actions are appropriate to the effects of the nonconformities encountered. A documented procedure has been established to define requirements for:

- **reviewing non-conformities (including customer complaints)**
- **determining the causes of nonconformities**
- **evaluating the need for action to ensure that nonconformities do not recur**
- **determining and implementing action needed**
- **records of the results of action taken, and reviewing corrective action taken**

BRC determines action to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions are appropriate to the effects of the potential problems. A documented procedure has been established to define requirements for:

- **determining potential nonconformities and their causes**
- **evaluating the need for action to prevent occurrence of nonconformities**
- **determining and implementing action needed**
- **records of results of action taken, and reviewing preventive action taken.**

Nonconformity can have multiple causes. BRC considers this when conducting root cause corrective action.

It is not enough to simply review corrective actions and insure that procedures were changed, personnel have been re-trained, and the processes were amended. BRC must

review whether or not the action(s) were effective; i.e. did they successfully eliminate the risk of the nonconforming condition.

Similarly, BRC must determine whether or not the preventive action (s) taken were effective in eliminating the risk of nonconformity.

10.3.1 Continual improvement – supplemental
BRC has a documented process for continual improvement. BRC includes in this process the following:

- identification of the methodology used, objectives, measurement, effectiveness and documented information;
- a manufacturing process improvement action plan with emphasis on the reduction of process variation and waste;
- risk analysis (such as FMEA)

Note: Continual improvement is implemented once manufacturing process is statistically capable and stable or when product characteristics are predictable and meet customer requirements.

Section 11.0 ISO / IATF 16949 Supporting Procedures and Processes.

Quality Procedure	4.2.3.1.1	Control of Documents
Quality Procedure	4.2.4.1.1	Control of Records
Quality Procedure	6.2.2.2.1	Training
Quality Procedure	6.3.2.1.1	Contingency Plan
Quality Procedure	8.2.2.1.1	Internal Audit
Quality Procedure	8.3.1.1.1	Control of Non- Conforming Product
Quality Procedure	8.5.2.1.1	Corrective Action
Quality Procedure	8.5.3.1.1	Preventive Action
Quality Procedure	8.4.1.2	Supplier Quality Manual
Quality Procedure	8.4.2.1	Supplier Ratings
Process	APQP	Advanced Product Quality Planning
Process	BOS	Business Operating System
Process	Continual Imp	Continual Improvement
Process	Corrective Action	Corrective Action
Process	Customer Feedback	Customer Feedback
Process	Customer Service	Customer Service
Process	Design	Design
Process	Feasibility Review	Feasibility Review
Process	Inspect & Testing	Inspection and Testing
Process	Internal Audit	Internal Audit
Process	Mgt Review	Management Review
Process	Marketing	Marketing
Process	MSA	Measurement System Analysis
Process	Non-Conform.Mat	Non-conforming material
Process	Packaging/Shipping	Packaging/ Shipping

Process	Planning	Planning
Process	PPAP	Part Production Approval Process
Process	Preventive Action	Preventive Actions
Process	Production	Production
Process	Purchasing	Purchasing
Process	Quoting	Quoting
Process	Receiving Insp	Receiving Inspection
Process	Statistical Tech.	Statistical Technique
Process	Training	Training

Section 12.0 Policy Manual Revision History

Rev	Date	Approval	Section	Nature of Change
0	03/01/04	G Eutsler	All	Original
1	04/27/04	G Eutsler	5.5	Add Eng, and Q. Mgr as customer rep
1	04/27/04	G Eutsler	5.6	Add Management reviews are conducted at a minimum of annually
1	04/27/04	G Eutsler	7.2	Added marketing, engineering, quality, purchasing and manufacturing has responsibility and authority to review requirements related to the product
1	04/27/04	G Eutsler	7.3	Added responsibility of product and product design
1	04/27/07	G Eutsler	7.4	Change “any” to all for validation of processes for production and service
2	05/10/07	G Eutsler	Scope	Added Montpelier as a certified ISO/TS 16949:2002 Location. Deleted Montpelier as an ISO 9001:200 location
3	06/01/09	G Eutsler	All	Updated to ISO 900:2008 and ISO/TS 16949:2009 requirements
4	07/23/09	G Eutsler	All	Vice President of Quality changed to Customer Quality Liaison/Certification Specialist
5	03/12/10	R Shepherd	7.4	Purchasing added criteria for section, third party registered or evaluation page 5 change Pontiac address to Auburn Hills
6	11/29/10	R Shepherd	Scope	Page 4 changed Pontiac to Sales, and ISO 9001:2004 to ISo 2008, Page 5 Address for Detroit changed to Detroit Sales Entire manual: Customer Quality Liaison / Certification Specialist to Director of Quality. Page 8 Process Map updated to include Environmental Impacts, Aspects & Impacts.
7	03/16/13	R Shepherd	Process Map	Updated process map to reflect corporate support at manufacturing and also, added additional corporate support
8	04/09/13	R Shepherd	Process Map	Updated process map to better define corporate support and interactions as well as adding MP Process Map
9	02/27/17	R Shepherd	Process Map	Updated process map to include HR/Training to Corporate level support, internal audits, added testing to dimensional lab.
10	12/23/14	R Shepherd	All	Updated changing director of quality to VP of Quality. Updated sales office address to 210
11	12/10/15	R Shepherd	All	Updated corporate process map changing marketing to sales. , added prequote to feasibility review, changed customer specific requirements to contract review, added quotation. With NBD and changed plant support to corporate support
12	07/14/16	R Shepherd	All	Updated making ISO 9001 and TS 16949:2009 consistent throughout the manual changing to ISO/TS16949, Changing nonconforming material to material group. Mfg. Plant support to Quality
13	05/22/17	R Shepherd	All	Updated manual for the new ISO:9001:2015 and IATF

				16949:2016
14	10/16/17	R Shepherd	4.3.2	Added form QP-005 matrix for customer specific requirements is included within quality policy manual
14	10/16/17	R Shepherd	Process Map	Updated corporate support map adding IT
14	10/16/17	R Shepherd	Process Map	Moved PPAP to Dimensional Lab and Product Testing.
14	10/16/17	R Shepherd	Process Map	Updated Manufacturing Support Map removing production and leaving manufacturing
14	10/16/17	R Shepherd	6.1.2.1	Added risk assessment review will be conducted at a minimum of annually by risk assessment team
14	10/16/17	R Shepherd	9.3.2	Added monitoring and measurement of objectives by reviewing gaps and actions where applicable
14	10/16/17	R Shepherd	9.3.2.1	Added process risk assessment
14	10/16/17	R Shepherd	9.3.3	Changed title to Mgt. review & BOS review. Add senior mgmt. will review Objectives for conform and consider adjustments as needed
	Date	Approval	Section	Nature of Change
14	10/16/17	R Shepherd	10.2.3	Added review of risk assessment for process failure was created.
15	12/12/17	R Shepherd	4.3.2	Added form QP -005 Matrix for customer specific requirements is included with the Quality Systems Policy Manual
15	12/12/17	R Shepherd	6.1.2.1	Added risk assessment will be conducted at a minimum of annually by risk assessment team
15	12/27/17	R Shepherd	9.3.2	Added monitoring and measurement of objectives by reviewing gaps and actions where applicable
15	12/12/17	R Shepherd	9.3.3	Changed title to Management review and BOS review.
15	12/12/17	R Shepherd	9.3.3	Changed to senior management will review internal objectives for compliance and consider adjustments
16	01/23/18	R Shepherd	8.3.1.1	Removed section due to BRC not being design responsible
16	01/23/18	R Shepherd	8.3.2	Removed section due to BRC not being design responsible
16	01/23/18	R Shepherd	8.3.3.1	Removed section due to BRC not being design responsible
16	01/23/18	R Shepherd	8.3.4.2	Added BRC is not design responsible
16	01/23/18	R Shepherd	8.3.5	Added BRC is not design responsible
16	01/23/18	R Shepherd	8.3.6	Added BRC is not design responsible
16	01/23/18	R Shepherd	Scope	Updated Scope to state BRC Rubber & Plastics, Inc. Hartford City, Churubusco and Bluffton divisions are manufacturers of molded and assembled rubber components, including rubber to metal and rubber to plastic bonding with support locations at Auburn Hills, MI and Fort Wayne, IN. Customer specific requirements include those for Ford, General Motors and Fiat Chrysler Automobiles (FCA). BRC does take exception to product design.
17	05/29/20	R Shepherd	5.1.1.1.	Updated Corporate responsibility to BRC has defined and implemented corporate responsibility policies, a zero tolerance policy and software code of ethic for all personnel with email access
17	05/29/20	R Shepherd	Throughout Manual	Corrected spelling and verbiage

18	09/22/21	R Shepherd	6.2.1 / 7.3.1 / 7.3.2 / 9.1.2.1 / 10.3	Removed WOW
19	03/24/22	R Shepherd	8.3.4	Highlighted yellow so it jumps out. Important information.
20	12/07/22	R Shepherd	Process Maps	Added Tooling and Maintenance to Corporate Level Support, deleted QOS from Manufacturing Support, deleted Customer Specific Requirements from Montpelier Process Map.
21	7/16/23	R Shepherd	Process Maps	Added IT to Process Map.
22	8/4/23	R Shepherd	Process Maps	Added Tooling and Maintenance to Corporate Level Support, deleted QOS from Manufacturing Support, deleted Customer Specific Requirements from Montpelier Process Map.
22	8/4/23	R Shepherd	Process Maps	Added Tooling and Maintenance to Corporate Level Support, deleted QOS from Manufacturing Support, deleted Customer Specific Requirements from Montpelier Process Map.
23	4/11/24	R Shepherd	1.1 & 3.0	Replaced the name Chrysler with Stellantis.
23	4/11/24	R Shepherd	4.3 & 5.3	Added Sanctioned Interpretations and Frequently Asked Questions.
23	4/11/24	R Shepherd		Added Sanctioned Interpretations and Frequently Asked Questions.
23	4/11/24	R Shepherd	4.1 & 4.2	Added climate change considerations.