

Stevens Urethane Quality Manual

Preface

This Quality Manual summarizes our quality management system policies only. References are included for each Management System Procedure that is used by Top Management for implementing the policies of Stevens Urethane.

This quality management system has been designed to promote and support continual improvement, emphasizing defect prevention, and the reduction of variation and waste in the supply chain.

Each Management System Procedure expands the What of the Quality Manual, and when applicable, defines Where, When, and Who for each respective ISO section. Management System Procedures are considered Level II of a four-tier documentation system. The Quality Manual is the only Level I document. Site-wide Processes and Work Instructions are considered Level III documents. They define How our quality management system works. Site-wide Processes define how our system interrelates and interacts functionally and cross-functionally throughout our facility [site-wide].

Management System Procedure [MSP-04] clearly describes our process-based system including a closed-loop customer feedback system.

We have core and support processes which interact and reference other related processes in our quality system. Our Site-wide Process [SWP-410] identifies core and support processes within our quality management system. SWP-410 also provides an understanding of the sequence and interaction between the processes.

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TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
	Title Page	1
	Preface	2
	Table of Contents	3
1.0	Introduction	5
1.1	Distribution Register, Revision History and Release Authority	
2.0	Quality Policy and Objectives, and Mission Statement	7
2.1	Quality Policy	
2.2	Mission and Values	
2.3	Quality Objectives	
3.0	Organization Chart and Description	9
3.1	Organization Chart	
3.2	Organization Description and History	
4.0	Quality Management System	12
4.1	General Requirements	
4.2	Documentation Requirements	
5.0	Management Responsibility	14
5.1	Management Commitment	
5.2	Customer Focus	
5.3	Quality Policy	
5.4	Planning	
5.5	Responsibility, Authority, and Communication	
5.6	Management Review	

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
6.0	Resource Management	17
6.1	Provision of Resources	
6.2	Human Resources	
6.3	Infrastructure	
6.4	Work Environment	
6.5	Information	
6.6	Suppliers and Partnerships	
6.7	Natural Resources	
6.8	Financial Resources	
7.0	Product Realization	20
7.1	Planning of Product Realization	
7.2	Customer Related Activities	
7.3	Design and Development	
7.4	Purchasing	
7.5	Production and Service Provision	
7.6	Control of Monitoring and Measuring Devices	
8.0	Measurement, Analysis and Improvement	28
8.1	General	
8.2	Monitoring and Measurement	
8.3	Control of Nonconforming Product	
8.4	Analysis of Data	
8.5	Improvement	

1.0 Introduction

The quality management system described herein enables management and employees to comply with Stevens Urethane's quality policy, and to realize its objectives.

The quality management system provides for an organized process approach to activities effecting quality, including verification.

The quality management system scope is to design and manufacture extruded polyurethane and photovoltaic encapsulant products; Section 7 of this Quality Manual contains no exclusionary statements.

Our goal is to assure that products are designed and manufactured to contractual requirements including performance, function and delivery, and to realize quality management system objectives.

When there is conflict between the statement of quality policy, the quality management system described herein, or our company practices, you are requested to inform the ISO Management Representative.

In cooperation with the appropriate manager, the quality management system or company practice will be evaluated, upgraded accordingly and aligned with the quality policy. In the event of unresolved conflict, the President shall arbitrate to conclusion.

This manual was prepared using ISO 10013: 1995 Guidelines. It is reviewed at least once per annum during a management review meeting to ensure relevancy of the information herein.

Changes are authorized by the Management Representative, and approved by the President after obtaining input from Top Management attesting to the usability of the manual.

The President has the final release authority for the complete implementation of the Quality Manual in its original or a revised format.

Where used for external or contractual purposes, reference can be made to the current revision of ISO 9001: 2000 and the Food and Drug Administration's [FDA] Quality System Regulation [QSR].

References to terms, definitions, concepts and principles are interpreted in ISO 9000: 2000 and ISO 9004: 2000. Auditing of our quality management system is based upon the policies stated within this manual.

Current issue of this manual is maintained through Stevens Urethane's document control center. Copies are considered uncontrolled, for reference only. Uncontrolled copies of this manual are available to employees and customers.

When requested, a current issue copy will be forwarded. These requests should be addressed to the: Quality Assurance Manager/ISO Management Representative, C/O Stevens Urethane, 412 Main Street, Easthampton MA 01027.

1.1 Revision History and Release Authority

Revision History			
Date	Description	Author	Rev
16-Jul-03	Original Release	Cher Nicholas	00
21-Jan-04	Updated to ISO 9001: 2000 requirements	Cher Nicholas	01
10-Aug-05	Updated Organizational Chart	Cher Nicholas	02
05-Mar-08	Updated Organizational Chart. Updated controlled copy distribution. Added photovoltaic encapsulant to QMS scope. Updated Quality Policy as agreed by Management. Updated Quality Objectives. Additional updates as required to bring the manual current with Stevens organizational structure.	Tara Lambert	03

Release Authority		
Title: Quality Manual	Number: SU-QM	Revision: 03
Approver: Tara Lambert Job Title: Quality Assurance Manager/ Management Representative	Signature: Date:	
Approver: Charles Tutterow Job Title: President, Stevens Urethane Executive VP, CFO, Secretary JPS Industries	Signature: Date:	

2.0 Quality Policy and Objectives, and Mission Statement

2.1 Quality Policy

Stevens Urethane is dedicated to maintaining an effective Quality Management System that drives value for our customers by delivering goods and services that meet or exceed customer performance requirements, and by providing on-time and accurate deliveries. Stevens Urethane Management is dedicated to driving commitment to quality through communication of goals and effectiveness to all levels of the organization. Stevens Urethane defines Quality Objectives to monitor the effectiveness of operations supporting this policy and is committed to the continuous improvement of the Quality Management System.

The quality policy is originated by the President of Stevens Urethane, and approved by Top Management.

It is considered appropriate to the purpose of our company and is reviewed for continuing suitability at management review meetings.

The quality policy has been explained to and discussed with existing employees, and is part of the new employee orientation process.

The quality policy is communicated and understood within the company by displaying it in many visible areas throughout the company.

2.2 Mission and Values

Stevens Urethane is committed to be a world leader in extruded polyurethane and photovoltaic products by:

- Manufacturing products of the highest quality striving for continuous improvement and innovation.
- Satisfying customers by meeting and exceeding their requirements and expectations.
- Operating in a safe and environmentally sound manner providing a rewarding workplace for Stevens associates where teamwork, openness, integrity, respect, accountability and the goal to be successful prevail.

2.3 Quality Objectives

Our quality policy provides a framework for measurable and quantifiable quality objectives reviewed continuously by Top Management with a commitment to continual Improvement.

Achievement of our measurable and quantifiable quality objectives has a positive impact on our company and customers.

We achieve quality objectives by improving our products, procedures, processes, work instructions, and environments to ensure that each customer receives the highest quality product, on-time, at a committed price.

Top Management has defined the following Quality Objectives for continuous “dashboard” measurement of Quality Management System effectiveness:

Pre-Production Planning (Customer Contract Reviews): BOMs corrected vs. Audited

Pre-Production Planning (Capacity Planning): Actual Orders vs. Planned

Pre-Production Planning (Supplier Management): Supplier On-Time Delivery

Production (Execution): Production to Plan

Production (Execution): 0 OSHA Recordables / Safety Incentive Program Performance

Post-Production (Continuous Improvement): Complaint Turnaround

Post-Production (Continuous Improvement): NCMR Turnaround

QMS Effectiveness: Internal Audits Conducted vs. Planned

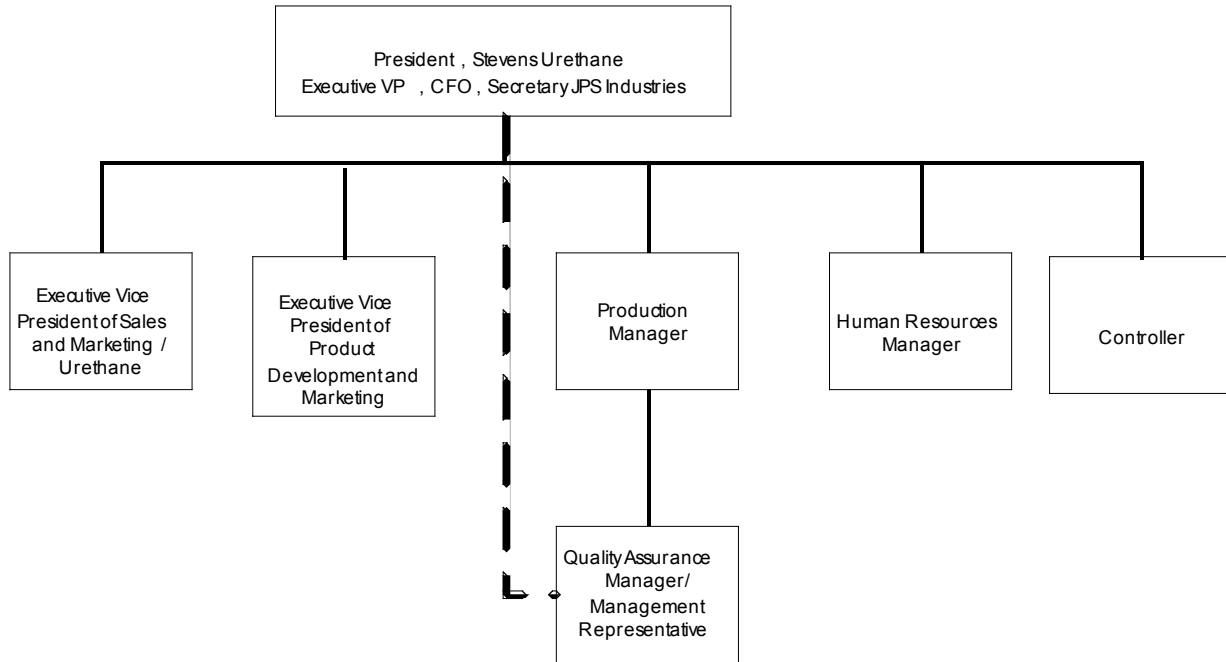
Performance targets for Quality Objectives are defined by Top Management and reviewed during Management Review for appropriateness to the QMS. Quality Objectives are measured weekly by the responsible function, and reviewed by Top Management Monthly. Results of measurements to target are posted for organizational communication quarterly.

Additional objectives, including the planning and management of changes to the Quality Management System, may be defined by any member of Top Management at any time. Additional objectives are reviewed and approved, and monitored for effectiveness, by Top Management.

Current and superseded quality objectives are maintained by Quality Assurance/Document Control Center and are available for review and audit.

3.0 Organization Structure [Chart] and Description

3.1 Organization Chart



3.2 Organization Description and History

JPS Elastomerics, one of the oldest manufacturing companies in the Pioneer Valley, is headquartered in Holyoke, Massachusetts and has manufacturing plants in Easthampton, MA, and in Westfield, NC. The company has a long and diverse history dating back to the early 1800s.

Our History:

In the 1800s three separate companies that would eventually become JPS began manufacturing operations in Massachusetts.

Nathaniel Stevens formed Stevens Mills in 1803, producing woven woolen broadcloth in a converted gristmill in North Andover.

In 1849 the first manufacturing facility to produce elastic webbing began in Easthampton, MA and would later become United Elastics Corp.

Samuel Williston established the Easthampton Rubber Thread Co. in 1863, the first rubber thread operation in the United States.

For over 100 years each company flourished and made significant changes in their business.

One significant change occurred in 1889 when Stevens Mills formed J.P. Stevens & Company to broaden its textile manufacturing operation to include merchandising. In 1946, J.P. Stevens & Co, Inc. merged with 13 other independent mill companies and began to sell shares of common stock on the New York Stock Exchange.

In 1927, Easthampton Rubber Thread Company was purchased by the United Elastic Corp. United Elastic continued its production of rubber thread in Easthampton until 1950. United Elastic then moved this operation to Stuart, Virginia [later named the Patrick Plant]. This allowed the company to add a Molded Products Department in its Easthampton Plant. The Company's expanded product offering included rubber stoppers, baby bottle nipples, and urethane tubing and film.

United Elastic continued to prosper and in 1962 built a manufacturing plant located in Westfield, NC. This facility was built to house the yarn braiding and cut rubber thread operations, as well as packaging of sewing notions for retail sale.

In 1968, J.P. Stevens & Co., Inc. purchased United Elastic forming the United Elastic Division of J.P. Stevens. Later, a restructuring within J.P. Stevens created the Elastomerics Division. The Elastomerics Division built a new plant on Main Street in Easthampton, MA.

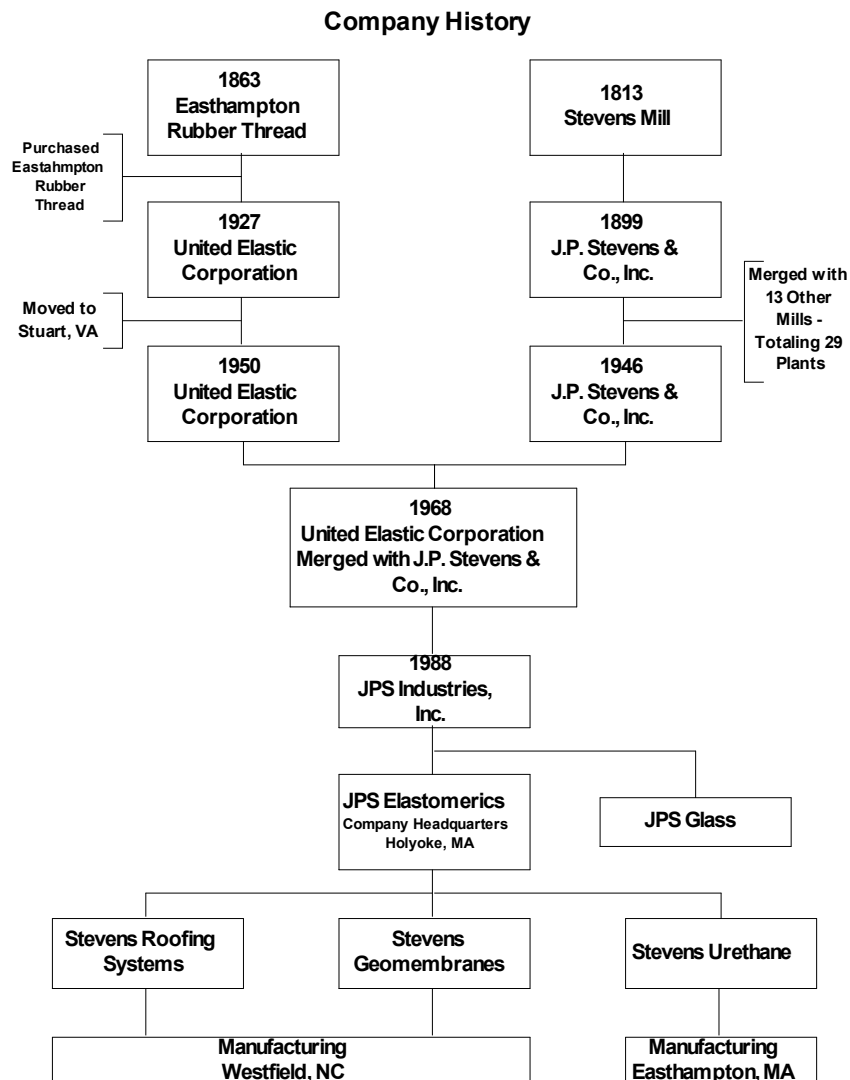
JPS Today:

In 1988 four divisions of J.P. Stevens, including the Elastomerics Division were purchased by private investors. Four separate companies were formed under the umbrella of a \$700 million holding company – the JPS Textile Group, Inc.

After the purchase, the Elastomerics Division was renamed JPS Elastomerics.

In 1999, JPS Textile Group, Inc. changed their name to JPS Industries, Inc. to reflect the diversity of the three JPS businesses and plans for future growth of the manufacturing business.

Today, more than 135 years since the Easthampton Rubber Thread Company was established, JPS Elastomerics has emerged as a market leader in each of the three segments in which it competes: commercial roofing, environmental liners and floating covers, and in the production of extruded polyurethane film, sheet and tubing. The company currently sells and markets its products worldwide under three brand identities: Stevens Roofing Systems, Stevens Urethane and Stevens Geomembranes.



4.0 Quality Management System

4.1 General Requirements

It is our policy to ensure that the Top Management team is ultimately responsible for establishing, documenting and implementing the quality management system, and the continual improvement of its effectiveness.

The team is responsible to ensure the availability of resources and personnel, and to establish priorities, objectives and policies to match the requirements of the markets and consumers we serve.

Our Top Management team ensures that we:

- identify all the processes needed for our quality management system and apply them throughout our organization
- determine the sequence and interaction of these processes
- determine criteria and methods needed to ensure that both the operation and control of these processes are effective
- ensure the availability of resources and information necessary to support the operation and monitoring of these processes
- monitor, measure and analyze these processes
- implement actions necessary to achieve planned results and continual improvement of these processes

We measure these processes in accordance with the requirements of the ISO 9001: 2000 International Standard.

The Top Management team is responsible and has the authority for general requirements activities.

Reference: Management System Procedure # MSP-04

4.2 Documentation Requirements

It is our policy to ensure that the quality management system is documented by a structure including a quality manual, site-wide processes and procedures.

Records are maintained as proof of successful implementation of our quality management system.

The quality management system includes a documented quality policy and quality objectives.

We ensure that the Quality Manual is a controlled document and includes:

- the scope of the quality management system, including details of and justification for any exclusions
- a description of the interaction between the processes of the quality management system

We ensure that procedures contain a defined purpose and scope, and provide functional responsibility and authority for each quality management system element in the ISO 9001: 2000 standard.

We ensure that newly created and revised documents are properly reviewed, approved for adequacy prior to release, updated and re-approved as necessary, legible and readily identifiable, controlled and communicated to appropriate personnel in a timely manner.

We ensure that the relevant revision of applicable controlled site-wide processes and procedures are readily available to the user, and that superseded and obsolete documents are removed from point of use.

Superseded and obsolete master documents are suitably identified and preserved for knowledge retention purposes.

We ensure that changes and current revision status of documents are appropriately identified.

We ensure that documents of external origin are identified, and that their distribution is controlled.

We ensure that records are maintained as defined by our quality management system.

We ensure that records stored in computers are backed up and password protected.

We ensure that records are legible, easily identified and readily retrievable.

Our records are identified, collated, and stored to minimize deterioration.

The Quality function is responsible and has the authority for documentation requirements.

Reference: Management System Procedure # MSP-04

5.0 Management Responsibility

5.1 Management Commitment

It is our policy to ensure that Top Management is responsible for establishing, documenting and implementing a quality management system that conforms to specified contractual requirements and satisfies the requirements of the ISO 9001: 2000 standard.

We ensure that the management at Stevens Urethane provides evidence of their commitment to the development and implementation of our quality management system and continually improves its effectiveness by:

- communicating to the organization the importance of meeting customer as well as statutory and regulatory requirements
- establishment of a quality policy
- establishment of quality objectives

We ensure the use of several means of communication to convey the importance of customer, statutory and regulatory requirements.

We ensure that our quality management system is reviewed during planned ISO management review meetings. We ensure that our quality objectives are reviewed and tracked as a result of these meetings.

We treat people fairly and consistently, and provide the training to ensure employees have the necessary knowledge to perform in their jobs

We maintain an environment of mutual respect with our customers and understand our customer's requirements and needs.

The Top Management team is responsible and has the authority for management commitment activities.

Reference: Management System Procedure # MSP-05

5.2 Customer Focus

It is our policy to understand and satisfy the current and future needs of our present and potential customers and to provide products that meet those needs while enhancing customer satisfaction.

The Top Management team is responsible and has the authority for customer focus activities.

Reference: Management System Procedure # MSP-05

5.3 Quality Policy

It is our policy to ensure that a quality policy is developed and approved, and that it includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system.

We ensure that our quality policy is considered appropriate for our organization, and is reviewed at management review meetings for continuing suitability.

We ensure that our quality policy provides the framework for establishing and reviewing quality objectives, and combined with our quality objectives is communicated to our associates as a vehicle toward customer satisfaction and continual improvement.

The Top Management team is responsible and has the authority for quality policy activities.

Reference: Management System Procedure # MSP-05

5.4 Planning

Top Management ensures that planning for our quality management system is conducted to meet the requirements stated in clause 4.1. Planning provides the framework for developing quality objectives to meet current and future needs of our company and our customers.

We ensure that our quality objectives are measurable and consistent with the quality policy, and they include a commitment to continual improvement.

We ensure that the integrity of the quality management system is maintained when changes are made to the system.

The Top Management team is responsible and has the authority for planning activities.

Reference: Management System Procedure # MSP-05

5.5 Responsibility, Authority, and Communication

It is our policy to ensure that responsibilities and authorities are defined and communicated within the organization.

We ensure the formal appointment of a Management Representative.

We ensure the use of internal communication to convey the effectiveness of our quality management system.

The Top Management team is responsible and has the authority for responsibility, authority, and communication activities.

Reference: Management System Procedure # MSP-05

5.6 Management Review

It is our policy to ensure that formal management review meetings are conducted, at planned intervals, with documented agenda and minutes as records.

During these meetings, management reviews the entire quality management system for continuing suitability, adequacy and effectiveness.

We ensure the review of critical indicators that represent the organization's performance in achieving quality objectives and assess opportunities for improvement and the need for change to the quality management system, including the quality policy and objectives.

The input to a management review minimally includes:

- internal quality system audit results
- customer feedback
- process performance and product conformity
- status of preventive and corrective actions
- follow-up actions from previous management reviews
- changes that could affect the quality management system
- recommendations for improvement

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

- improvement of the effectiveness of the quality management system and processes
- product improvement related to customer requirements
- resource needs

The Top Management team is responsible and has the authority for management review activities.

Reference: Management System Procedure # MSP-05

6.0 Resource Management

6.1 Provision of Resources

It is our policy to ensure that we determine and provide for resources to implement and maintain the quality management system and continually improve its effectiveness, and to enhance customer satisfaction by meeting customer requirements.

We provide, develop and support a diverse workforce that enables us to meet business goals. The Quality function is responsible and has the authority for quality training activities.

It is our policy to adhere to local, state and federal regulations mandates.

The Top Management team is responsible and has the authority for provision of resources activities.

Reference: Management System Procedure # MSP-06

6.2 Human Resources

It is our policy to ensure the employment of sufficient personnel with the necessary background, training and experience to ensure that the requirements of the quality management system are met.

Personnel performing work affecting product quality shall be competent on the basis of appropriate training, skills and experience. We:

- 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
- ensure that personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives
- maintain appropriate records of education, training, skills and experience

We ensure that training needs of personnel affecting quality are identified and that resultant training is provided.

We ensure that personnel are qualified through education and on-the-job training, and experience adequate to perform the task, as specified in job descriptions.

The Human Resource function is responsible and has the authority for human resource activities.

Reference: Management System Procedure # MSP-06

6.3 Infrastructure

It is our policy to ensure that our facilities are representative of the organization's commitment to excellence.

Our facilities and equipment are maintained in a clean and safe manner.

We determine, provide and maintain the infrastructure needed to achieve conformity to product requirements.

Our infrastructure may include, as applicable, the following:

- buildings, workspace and associated utilities
- process equipment [both hardware and software]
- supporting services i.e. transport or communication

The Operations and Quality functions are responsible and have the authority for infrastructure activities.

Reference: Management System Procedure # MSP-06

6.4 Work Environment

It is our policy to ensure that work environments are properly controlled throughout all areas of our facility to achieve conformity to product requirements.

We ensure that manufacturing areas are properly operated to provide an appropriately controlled environment to manufacture our products.

The Operations function is responsible and has the authority for environmental control activities.

Reference: Management System Procedure # MSP-06

6.5 Information

It is our policy to ensure we continually review our information systems to make sure they remain capable of providing accurate and timely data to foster factual management decisions, and the continuing development of our employee's knowledge that can simulate innovation throughout our organization.

We ensure that we:

- identify system information needs
- identify and access internal and external sources of information
- convert data to knowledge for the organization
- use the data, information and knowledge to set and meet strategies and objectives
- ensure appropriate security and confidentiality
- evaluate benefits from the use of the information to improve managing information and knowledge

The Finance and Administration function is responsible and has the authority for information activities.

Reference: Management System Procedure # MSP-06

6.6 Suppliers and Partnerships

It is our policy to ensure that mutual relationships are established with suppliers and partners to promote mutual successes and facilitate communications in improving the effectiveness and efficiency of processes that create value.

The Purchasing and Quality functions are responsible and have the authority for supplier and partnership activities.

Reference: Management System Procedure # MSP-06

6.7 Natural Resources

It is our policy to ensure that we establish contingency plans for critical natural resources to ensure the availability or replacement of these resources in order to prevent or minimize effects on the performance of the organization.

The Top Management team is responsible and has the authority for natural resources activities.

Reference: Management System Procedure # MSP-06

6.8 Financial Resources

It is our policy to ensure that management provides the necessary financial resources required to implement and maintain an effective and efficient quality management system to achieve the organization's objectives.

The Top Management team is responsible and has the authority for financial resources activities.

Reference: Management System Procedure # MSP-06

7.0 Product Realization

7.1 Planning of Product Realization

It is our policy to plan and develop processes needed for product realization.

We provide a trained production team to monitor and control processes that ensure products are efficiently and effectively manufactured to customer specifications in a safe and clean environment that protects our human and material assets.

We ensure that planning of product realization is consistent with the requirements of other processes within our quality management system.

When planning product realization, we determine the following, as appropriate:

- quality objectives and requirements for the product
- the need to establish processes and documents
- 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 realized processes and resulting product meet requirements

We ensure that processes are well documented.

We have a formal process for problem identification, corrective action and change.

We develop innovative products. We understand our customer's requirements and needs.

Teamwork and individual excellence are keys to our success.

The Top Management team is responsible and has the authority for planning of product realization activities.

Reference: Management System Procedure # MSP-07

7.2 Customer Related Activities

It is our policy to ensure determination of requirements related to the products by identifying:

- 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
- additional requirements determined by the organization

We ensure the review of requirements related to the product. This review is conducted prior to our commitment to supply product to our customer. We ensure that:

- product requirements are defined
- contract or order requirements differing from those previously expressed are resolved
- we have the ability to meet defined requirements

When a customer provides no documented statement of requirement, the customer requirements are confirmed by all effected functions prior to acceptance. When product requirements are changed, we ensure that relevant documents are amended and that relevant personnel are made aware of the changed requirements.

We develop and strive for increased levels of customer and consumer intimacy to develop the foundation for our business. We determine and implement effective arrangements for communicating with our customers.

The Top Management team is responsible and has the authority for customer-related process activities.

Reference: Management System Procedure # MSP-07

7.3 Design and Development

It is our policy to plan and control the design and development of product, when required. We ensure that during design and development planning, we determine:

- the design and development stages
- the review, verification and validation that are appropriate to each design and development stage
- the responsibilities and authorities for design and development

We manage the interfaces between different groups involved in design and development to ensure effective communication and clear assignment of responsibility.

Planned output is updated, as appropriate, as the design and development evolves.

We ensure that inputs relating to product requirements are determined, and records maintained. Inputs include:

- functional and performance requirements
- applicable statutory and regulatory requirements
- where applicable, information derived from previous similar designs
- other requirements essential for design and development

We ensure that inputs are reviewed for adequacy, and that requirements are reviewed to ensure they are complete, unambiguous and not in conflict with each other.

We ensure that outputs of design and development are provided in a form that enables verification against the design and development input, and approved prior to release.

We ensure design and development outputs:

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

We ensure that at suitable stages in the design, systematic reviews of design and development are formally and independently conducted and documented at appropriate stages.

We ensure that these reviews include design verification and validation performance criteria.

We ensure that design reviews:

- evaluate the ability of the results of design and development to meet requirements
- identify any problems and propose necessary actions

We ensure reviews include representatives of all functions concerned with the design and development stage being reviewed.

We ensure verification is performed to ensure that the design and development outputs meet the design and development input requirements.

We ensure that design and development changes are identified and records maintained.

We ensure that changes are reviewed, verified and validated, as appropriate, and approved before implementation.

We ensure the review of design and development changes includes evaluation of the effect of the changes on constituent parts and product already delivered.

The Sales/Marketing and Product Development functions are responsible and have the authority for design and development activities.

Reference: Management System Procedure # MSP-07

7.4 Purchasing

It is our policy to ensure 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.

We evaluate and select suppliers based on their ability to supply product in accordance with our requirements.

Criteria for selection, evaluation and re-evaluation are established.

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
- quality management system requirements

We ensure the adequacy of specified purchase requirements prior to their communication to the supplier.

We establish and implement inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements.

Where our customer or we intend to perform verification at our supplier's premises, we state the intended verification arrangements and method of product release in the purchasing information.

We ensure that each approved supplier is evaluated, assessed and selected on their ability to meet contractual requirements.

The terms vendor and supplier are considered synonymous in our quality management system.

The Purchasing function is responsible and has the authority for purchasing activities.

Reference: Management System Procedure # MSP-07

7.5 Production and Service Provision

It is our policy to plan and carry out production and service under controlled conditions.

Controlled conditions include, as applicable:

- the availability of information that describes the characteristics of the product
- the availability of procedures and site-wide processes, as necessary
- the use of suitable equipment
- the availability and use of monitoring and measuring devices
- the implementing of monitoring and measurement
- the implementation of release, delivery and post-delivery activities

We validate processes for production and service provision where the resulting output cannot be verified by subsequent monitoring and measurement.

This includes processes where deficiencies become apparent only after the product is in use or the service has been delivered.

When required, we ensure that validation demonstrates the ability of these processes to be capable.

We establish process controls including, as applicable and when necessary:

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

Where appropriate, we identify the product by suitable means throughout product realization, including product status with respect to monitoring and measurement requirements. When traceability is a requirement, we ensure control, and record the unique identification of product.

We exercise care with customer property while it is under our control or while being used by us, in order to identify, verify, protect and safeguard customer property provided to us for use or to incorporate into product.

We preserve the conformity of product during internal processing and delivery to the intended destination. This preservation includes identification, handling, packaging, storage and protection.

When required, we ensure that personnel who periodically adjust machinery and equipment have available for reference any inherent limitations or allowable tolerances.

We ensure that where process results cannot be verified by inspection and testing, the process is continuously monitored to prevent nonconformity, and when required, is adequately validated and approved. Such processes may be referred to as special processes.

We ensure that changes to special processes are conducted under controlled conditions, evaluated through the remainder of the process and revalidated and approved when required.

We ensure proper control of manufacturing process materials, when appropriate and required.

It is our policy to ensure that nonconforming materials, finished goods, or customer returns are identified by product and source, and segregated to prevent unintentional usage within our processes. We ensure that disposition is timely and properly authorized, and that the customer is contacted prior to granting a product waiver, when necessary.

We ensure that reworked materials are routed through the same inspection and test process as the original product for the affected parameters.

We ensure that protective storage areas and stockrooms are provided to prevent damage or deterioration prior to use or shipment.

We ensure that inventory rotation and shelf life issues are properly documented and controlled.

When required, we ensure provision for the protection of our product from the time of shipment through the delivery to its final destination.

It is our policy to ensure that product labels are properly controlled for each product, when required by contract.

The Operations function is responsible and has the authority for production and service provision activities.

Reference: Management System Procedure # MSP-07

7.6 Control of Monitoring and Measuring Devices

It is our policy to determine the monitoring and measurement to be undertaken and the monitoring and measuring devices needed to provide evidence of conformity of product to determined requirements.

We establish processes to ensure that monitoring and measurement can be carried out and are carried out in a manner that is consistent with the monitoring and measurement requirements.

When necessary to ensure valid results, measuring equipment is:

- 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 shall be recorded
- adjusted or re-adjusted as necessary
- identified to enable the calibration status to be determined
- safeguarded from adjustments that would invalidate the measurement result
- protected from damage and deterioration during handling, maintenance and storage

In addition, we assess and record the validity of the previous measuring results when the equipment is found not to conform to requirements.

We take appropriate action on the equipment and any product affected.

When used in the monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application is confirmed.

This is undertaken prior to initial use and reconfirmed, when necessary.

We ensure that calibration performed is traceable to the National Institute of Standards and Technology [NIST].

We ensure that a Master Calibration List [MCL] is maintained.

The Quality function is responsible and has the authority for control of monitoring and measuring device activities.

Reference: Management System Procedure # MSP-07

8.0 Measurement, Analysis and Improvement

8.1 General

It is our policy to plan and implement monitoring, measurement, analysis and improvement processes needed:

- to demonstrate conformity of the product
- to ensure conformity of the quality management system
- to continually improve the effectiveness of the quality management system

We include determination of applicable methods, including statistical techniques when required by contract, and the extent of their use.

The Quality function is responsible and has the authority for measurement, analysis and improvement activities.

Reference: Management System Procedure # MSP-08

8.2 Monitoring and Measurement

It is our policy to ensure that measurements of the performance of the quality management system, we monitor information relating to customer perception as to whether the organization has met customer requirements.

We apply suitable methods for monitoring and, where applicable, measurement of the quality management system processes.

These methods demonstrate the ability of the processes to achieve planned results.

When planned results are not achieved, correction and corrective action is taken, as appropriate, to ensure conformity of the product.

We monitor and measure the characteristics of the product to verify that product requirements have been met. This is carried out at appropriate stages of the product realization process in accordance with the planned arrangements.

Evidence of conformity with the acceptance criteria is maintained.

We ensure that product release and service delivery does not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.

The Quality and Operations functions are responsible and have the authority for monitoring and measurement activities.

Reference: Management System Procedure # MSP-07

8.3 Control of Nonconforming Product

It is our policy to ensure that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. We ensure the controls and related responsibilities and authorities for dealing with nonconforming products are defined.

We deal with nonconforming product by one or more of the following ways:

- by taking action to eliminate the detected nonconformity
- by authorizing its use, release or acceptance under concession by a relevant authority and, where applicable, the customer
- by taking action to preclude its original intended use or application

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, we take appropriate action.

We ensure that nonconforming raw materials, finished goods, or customer returns are identified by product and source, documented and segregated to prevent unintentional usage within our process. We ensure that disposition is timely and properly authorized, and that the customer is contacted prior to granting a product waiver, when necessary.

The Quality and Operations functions are responsible and have the authority for control of nonconforming product activities.

Reference: Management System Procedure # MSP-08

8.4 Analysis of Data

It is our policy to determine, collect and analyze appropriate data to demonstrate the suitability and effectiveness of the quality management system, and evaluate where continual improvement of the effectiveness of the system can be made.

This includes data generated as a result of monitoring and measurement, and from other relevant sources. The analysis of data shall provide information relating to:

- customer satisfaction
- conformity to product requirements
- characteristics and trends of processes and products, including opportunities for preventive action and suppliers.

We ensure that data driven decisions are made concerning conformity to product requirements, process trends, customer satisfaction, and supplier relationships. We ensure that we measure and minimize process variation.

The Quality and Operations functions are responsible and have the authority for analysis of data activities.

Reference: Management System Procedure # MSP-07

8.5 Improvement

It is our policy to continually improve the effectiveness of the quality management system through use of the quality policy, quality objectives, inspection activities, analysis of data, corrective and preventive actions and management reviews.

We ensure action 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 nonconformities [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

We determine 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
- persistent and irreversible corrective and preventive actions are established, documented and implemented

We encourage our employees to identify opportunities for quality and productivity improvements. Various techniques for improvements are made available through training.

The Quality and Operations functions are responsible and have the authority for improvement activities.

Reference: Management System Procedure # MSP-07