Quality Policy Manual

AS 9100C / ISO 9001

J & J SPRING ENTERPRISES, LLC
14100 23 Mile Road
Shelby Township, Mi 48315

TABLE OF CONTENTS

INFORMATION PAGE

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Approved By:	**President**
Organization:	**J & J SPRING ENTERPRISES, LLC**
Organization Address:	**14100 23 Mile Road Shelby Township, MI 48315**
Top Management:	**Vice President of Operations Management Representative**
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INTRODUCTION

J & J SPRING ENTERPRISES, LLC strives to achieve the highest standards of customer service and product quality. The company developed and implemented a QMS to better satisfy the needs of its customers and to improve management of the organization. The QMS complies with the International Standards SAE AS9100C and ISO 9001, and its technical equivalent, ANSI/ASQC Q9001. The QMS covers the processes of the organization that result in the products it provides to its customers. In addition, Quality Objectives have been established to allow J & J SPRING ENTERPRISES, LLC to achieve the highest standards for its products, which are measured and monitored in order to evaluate the effectiveness of the QMS. Also, J & J SPRING ENTERPRISES, LLC strives to develop proactive measures within its QMS, based on the understanding of the risk of likely occurrences that produce a negative consequence in achieving our Quality Objectives.

All employees and participants are aware of their role in the QMS and the progress the organization is making in meeting its Quality Objectives. The QMS is designed to communicate the expectations of the customer, established controls that foster a culture of commitment to excellence, and promote competency and awareness of responsibilities through training and Management Reviews. The organization appoints a Management Representative for the QMS to champion its implementation and maintenance. The effectiveness of the QMS is monitored by Top Management to ensure the Quality Objectives are being pursued, and when appropriate, improvement plans are put into place.

J & J SPRING ENTERPRISES, LLC works to the highest professional standards supported by documentation explicit to the quality management criteria of the International Standards. The foundation of the QMS is the Quality Policy Manual. The manual is divided into eight sections corresponding to the International Standard. Each section describes the basic principles of the system that are the subject of the section. Each part of the manual identifies it applicability to the aerospace, automotive, combined aerospace and automotive, or general-non specific ISO requirements.

Level Two procedures supplement the Level One policy by documenting how the policy is carried out on a day-to-day basis for operations. The procedures explain what special provisions contained therein apply to the aerospace standards.

The purpose of this manual is to define and describe the QMS, to define the authorities and responsibilities of the management personnel affected by the system, and to document in general terms all the activities comprising the QMS. Another purpose of this manual is to

present the QMS to customers and to inform them what specific controls are implemented to meet or exceed the Quality Policy.

QUALITY POLICY & COMMITTMENT

J & J SPRING ENTERPRISES, LLC committs to continuously improve its products and services in order to meet or exceed the expectations of its customers and employees. The company delivers to them on-time, defect free products and services whenever possible.

QUALITY OBJECTIVES

1. Customer satisfaction through customer survey measurements (*Target: annual average customer satisfaction ratings of 4 or greater*)

2. Defect free product as measured by product conformity (*Target: No more than 18 Non-Conformances annually*)

3. On-time shipments of product to customers as measured customer promised date (*Target: annual and monthly on-time percentage of 85% or greater*)

4. Continued Improvements to the product, process, or Quality System as measured in the number of PAL (Project Assignment List) completed. (*Target: at least 4 projects completed during the year*)

Approved by:

February 17, 2014

SECTION 1
Scope

1.1 General

The QMS documented in this Quality Policy Manual pertains to the processes and systems for J & J SPRING ENTERPRISES, LLC to:

Manufacture of Mechanical Springs, Wire Forms, Clips, Stampings and Washers.

The QMS documentation specifies the way this company addresses the requirements of the International Standards SAE AS9100C and ISO 9001.

In this Quality Policy Manual, the organization documents a QMS that consistently strives to meet the stated Quality Policy and Quality Objectives. In addition, the manual addresses the methods used to monitor and meet the Quality Objectives through the effective application of a QMS that includes corrective and preventive action and the process of continual improvement.

1.2 Permissible Exclusions

J & J SPRING ENTERPRISES, LLC has reviewed all the requirements of the International Standards SAE AS9100C and ISO 9001 and the following are permissible exclusions:

The provisions for Section 7.3 *Product Design and Development* are excluded due to the nature and size of the organization, as well as the limited expertise in CAD applications. The company does not provide product design and development for its customers.

The provision for Section 7.5.1.4, *Post-Delivery Support* is not offered to our customers. Items (a) through (e) do not apply.

The provision for Section 7.5.2 *Validation of Processes for Production and Service Provision* is also excluded from the scope of the QMS. J & J SPRING ENTERPRISES, LLC production activities do not include any processes where the resulting output cannot be verified by subsequent monitoring or measurement and, as a consequence, deficiencies become apparent only after the product is in use or the service has been delivered to the customer.

The above exclusions are not customer or regulatory requirements for the products that are produced. The company's contract review process ensures that customers are aware of these exemptions, as applicable.

In the event other exclusions are identified in the future to the QMS, they are limited as permitted in Clause 1.2 of the International Standards. The above claims made by the organization pertaining to compliance with the International Standards are consistent with the requirements of the International Standards SAE AS9100C and ISO9001.

SECTION 2
Normative References

2.0 General

ISO 9000:2000, *Quality Management System - Fundamentals and Vocabulary,* contains provisions, which through reference in this text and the International Standards are included in this company's QMS**.**

SECTION 3
Terms & Definitions

Continual Improvement

Continual Improvement is the process of enhancing the QMS to achieve improvement in overall performance in line with the organization's Quality Policy and Quality Objectives.

Documented Procedure

Documented procedure means the activity is established, documented, implemented, and maintained.

General

The terms and definitions provided in ISO 9000:2000 apply to the organization's QMS. The terms used to describe the supply chain are:

Supplier — Organization or Company — Customer
(J & J SPRING ENTERPRISES, LLC)

International Standards

Abbreviation for SAE AS9100C and ISO 9001.

Organization

J & J SPRING ENTERPRISES, LLC

Product
The term product is defined as the result of the process. There are four generic product categories covered under the International Standard:

- Hardware
- Software
- Services
- Processed materials

While many products are combinations of the four generic product categories, the dominant aspect of the combined elements determines what it is to be called. J & J SPRING ENTERPRISES, LLC produces products covered under hardware, such as coiled and flat springs.

Process Owner
Individual with the primary responsibility for a process and its documentation including its implementation, training process users and internal suppliers & customers, and being audited for its compliance and effectiveness.

QMS
Abbreviation for Quality Management System.

Quality Plan
Documentation that describes how the process controls of the QMS are applied for a specific project, product, or contract.

Key Characteristics
The features of a process, part, or material whose variation has a significant influence on fit, performance, service life, or manufacturability.

Special Requirements (AS)
Those requirements identified by the customer, or determined by the organization, which have high risks to being achieved, thus requiring their inclusion in the risk management process.

Critical Items (AS)

Those items (e.g. functions, parts, software, characteristics, and processes) having significant effect on the product realization and use of the product: including safety, performance, form, fit, function, ability to produce, service life, etc.; that require specific actions to ensure they are adequately managed. Examples of critical items include safety critical items, fracture critical items, mission critical items, key characteristics, etc.

Risk (AS)
An undesirable situation or circumstance that has both a likelihood of occurring and a potentially negative consequence.

Foreign Object Debris (FOD) (AS) is a substance, debris, or article alien to the product or process which would potentially cause damage to the fit, form, or function of the end use.

Foreign Object Damage (FOD) (AS) is any damage attributed to a foreign object that can be expressed in physical or economic terms which may or may not degrade the product's required safety or performance characteristics

Outsourced Process
A process that the organization needs for its quality management system and which the organization chooses to have performed by an external party.

SECTION 4
Quality Management System

4.1 General Requirements

J & J SPRING ENTERPRISES, LLC has established a documented QMS as described in this Quality Policy Manual. Through effective implementation, the system is maintained and continually improved. The method of implementation involves the following steps:

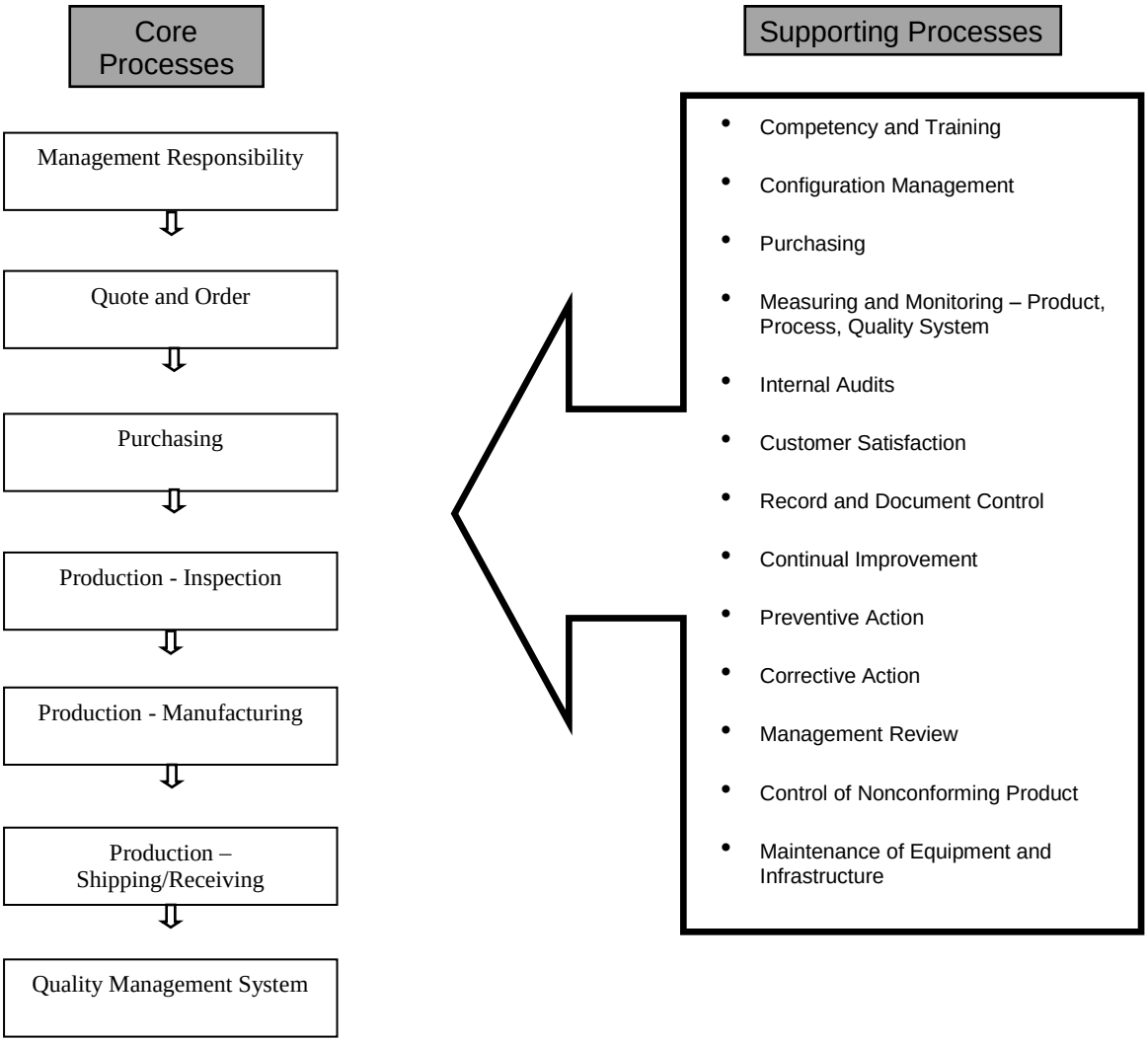
- Identification of processes needed for the QMS and their application throughout the organization (see Appendix A Core Process Maps)
- Determination of the sequence and interactions of these processes
- Determination of the criteria for control of the processes and methods needed to ensure effective operations
- Provision for the availability of resources and information to support the operation and monitoring of processes affecting the QMS

- Provision for the measuring, monitoring, and analysis of the processes and subsequently doing what is necessary to achieve the planned results and continual improvements
- Address customer specific and applicable statutory and regulatory QMS requirements. (AS)

The organization in accordance with the activity identified in the QMS controls outsourced processes that affect the product conformity with requirements. Ensuring control over outsourced processes does not absolve the company for its responsibility of conformity to all customer requirements.

A detail of the inputs/outputs/interactions/controls is presented in Appendix A – QSF-800 Quality Management System Core Process Map. It illustrates how the processes needed for the QMS are sequenced and interact. Additionally, J & J SPRING ENTERPRISES, LLC has developed associated operating procedures that support the QMS documented on QDC-616 Master Document List.

The following illustrates the way Core Processes are sequenced and how Core Processes relate to Supporting Processes.



J & J SPRING ENTERPRISES, LLC manages its value added processes in accordance with the International Standard, the Quality Policy Manual, and Operating Procedures, Work Instructions, and Level Four documentation.

4.2 Documentation Requirements

4.2.1 General Documentation Requirements

The QMS includes the following:

- Quality Policy Manual
- Documents required to ensure the effective planning, operation, and control of its processes and activities
- Documented statement of the Quality Policy and Quality Objectives
- Records required by the International Standard
- Documents required by regulatory authorities

The above documents are controlled. There are procedures to ensure that personnel have access to, and are aware of, relevant quality management system documentation and changes.

The extent that the organization documents its QMS is dependent upon the following factors:

- The organization size and type of operations
- The complexity and interaction of the processes it uses
- The experience, training, and competence of its personnel
- As appropriate to demonstrate conformance to the requirements of the International Standard

4.2.2 Quality Policy Manual

J & J SPRING ENTERPRISES, LLC has established and maintains a Quality Policy Manual, also known as Level One documentation for the QMS. The manual includes the following:

- The scope of the QMS including the details of and justification for any exclusions to the International Standard
- Reference to supporting documented procedures.
- Description of the sequence and interaction of processes included under the scope of the QMS

4.2.3 Control of Documents

Documents required for the QMS are controlled in accordance with the procedure. The elements of control are:

- The controlled document must be approved for adequacy prior to issue for use
- The controlled document must be reviewed and updated as necessary
- The revision status of controlled documents must be identified
- Relevant versions of controlled documents must be made available at the point of use
- Controlled documents must be legible, readily identifiable, and retrievable
- Controlled documents of external origin are identified and their distribution is controlled
- After they become obsolete, controlled documents are suitably identified if they are retained for any purpose so as not to be used unintentionally
- J & J SPRING ENTERPRISES, LLC coordinates changes with customers and regulatory agencies as required by agreements/contracts.

4.2.4 Control of Records

Controlled records are established and maintained to provide evidence of conformity to the QMS requirements and are controlled in accordance with a procedure for Control of Records. This procedure defines the controls needed for:

- Identification
- Storage
- Protection
- Retrieval
- Retention time
- Disposition
- Records created or maintained by suppliers (AS)
- Access to records by customers and regulatory authorities according to requirements

The control of records satisfies customer specified requirements and relevant regulatory requirements.

SECTION 5
Management Responsibility

5.1 Management Commitment

J & J SPRING ENTERISES, LLC is committed to the development and improvement of the QMS. Evidence of Top Management commitment is present through the following actions:

- J & J SPRING ENTERPRISES, LLC has established the organization's Quality Policy and Quality Objectives for the QMS that are appropriate to the:
  - Nature of the industry
  - Activities that impact quality
  - Resulting products and services
- The organization monitors the measured results of the QMS and communicates the findings throughout the organization
- The policies and objectives established for the QMS include a commitment to continual improvement
- The organization's Quality Policy and Objectives are communicated throughout the organization and emphasizes the importance of meeting the organization's legal and regulatory requirements and responsibilities
- Training is provided to all employees and participants on the QMS with the objective of explaining the individual's role and responsibility in achieving the organization's Quality Policy and Quality Objectives.
- On an annual basis, Top Management conducts Management Reviews of the QMS with the objective of determining the effectiveness of the system in meeting the goals set forth in the Quality Policy and Quality Objectives
- Top Management ensures that adequate resources are made available as necessary to ensure the effectiveness of the QMS
- The documentation, implementation, and maintenance of the QMS are ensured by the organization's Top Management
- Top management ensures that the customer requirements are determined and met with the aim of enhancing customer satisfaction

5.2 Customer Focus

J & J SPRING ENTERPRISES, LLC maintains customer focus on a broad market basis as well as on a job specific level. The voice of the customer is used by Top Management to ensure that the customers' needs and expectations are defined. Legal and regulatory obligations related to the product are also considered. For each job that is awarded, the requirements are converted into plans that ensure customer satisfaction.

The process of review and acceptance of contracts is explained in the Appendix A to this Quality Manual under the core process, Sales and Order Process. Customer Focus to ensure that customer requirements are determined and met. It is managed with the recording of feedback in the incident log. The management team analyzes this information and takes appropriate action.

Top management ensures that product conformity and on-time delivery are measured and that appropriate action is taken if planned results are not, or will not be, achieved.

5.3 Quality Policy

The Quality Policy is approved by the General Manager/VP Operations. The Quality Policy satisfies the following requirements of the International Standard:

- Is appropriate to the purpose of the organization
- Includes a commitment to meeting the requirements of the customer and the International Standard and to continual improvement
- Provides the framework for establishing and reviewing the Quality Objectives set for the QMS
- Is communicated and understood at the appropriate levels of the organization
- Is reviewed for continued suitability as part of the regular Management Review
- Is controlled in accordance with the procedures for document control.

5.4 Planning

5.4.1 Quality Objectives

Top Management of J & J SPRING ENTERPRISES, LLC establishes the Quality Objectives for the appropriate activities and levels within the organization. The Quality Objectives are consistent with the organization's Quality Policy and are measured and reported on a regular basis as part of Management Review. The Quality Objectives include the commitment to continual improvement of the QMS as well as those processes needed to meet the requirements of the organization's product to ensure customer satisfaction.

5.4.2 Quality Management System Planning

Top Management ensures that adequate resources are provided in order to achieve the Quality Objectives. In order to accomplish this, Top Management identifies what resources are needed to support the QMS including personnel, equipment, facilities, and information. Planning activity is documented in the minutes of the Management Review, Business Planning such as budget reviews, and job specific quality planning documents including the job specific contract reviews (see, Order Review Form) and quality/production records (see Job Traveler).

Quality planning includes planning for:

- All processes of the QMS considering any permissible exclusions
- All resources required to meet regulatory, legal, or customer requirements
- Improvements to the QMS

Changes to quality plans are accomplished in a controlled manner through planning that ensures that the integrity of the QMS is maintained throughout.

5.5.1 Responsibility and Authority

The roles and responsibilities for the activities comprising the QMS are defined and reviewed regularly during the Management Review to ensure the system is being effectively administered.

Functions and their interactions are specified according to the quality manual for the organization. The responsibility and authority for the activities comprising the QMS are communicated in order to facilitate its effective implementation and maintenance.

The following is a listing of the job descriptive elements of the various jobs affecting the QMS:

General Manager/VP Operations

- Approves the Quality Policy
- Implements and controls QMS management commitment
- Provides resources necessary to maintain the QMS
- Establishes and updates the business strategy
- Oversees the daily operations of the facilities
- Ensures compliance with environmental and general safety regulations

- Defines job specific qualification requirements for Production Personnel.
- Identifies quality issues and initiates requests for, and follows up and records corrective actions
- Monitors employee competency to job requirements
- Conducts job specific training as necessary and makes training recommendations for individuals
- Schedules production to meet customer's demands for delivery
- Provides customer liaison and service
- Document and determine pricing for quotes
- Carries out contract and order reviews
- Records contract acceptance following the contract review activity
- Screens applicants according to job requirements
- Ensures that product conformity and on-time delivery performance are measured and that appropriate action is taken if planned results are not, or will not be achieved
- Perform Project Management on a daily basis

Management Team

- Participates in planning production processes
- Monitors the quality of competitors
- Advertises and promotes organization's products
- Participates in Management Review Meetings with assigned projects

Quality Management Representative/Document Control Specialist

- Maintains Incident Log
- Maintains the Quality Policy Manual
- Manages the document control system
- Maintains, reviews, and controls the QMS documents and records
- Maintains and controls a register of Approved Suppliers
- Maintains Quality policy, objectives, and planning
- Monitors the performance of suppliers for quality, delivery, and price
- Maintains the records of continual improvement
- Maintains record of employee competency and training
- Performs all QMS Internal Audits
- Performs daily inventory adjustments and closeout review of all job packet
- Performs inventory adjustment from annual physical
- Manages all daily receiving of all incoming Purchase Orders
- Oversees the Quality Performance and Process Measurements data collection on a monthly basis

- Reviews and distributes Level 1-4 documents
- Determines QMS needs, performs Internal Audits, and completes documentation
- Analyzes collected data and submits to Management Team for review in Management Review Meetings
- Facilitates Management Review Meetings
- Controls and monitors continual improvement, corrective actions, and preventive actions
- Perform Project Management on a daily basis
- Initiates, controls, and oversees all internal communication of Non-Conforming Reports
- Oversees that monthly Preventive Maintenance and Safety Observations are completed, recorded, followed up, and filed
- Investigates and monitors all late jobs

Project & Sales Engineer

- Monitors the performance of suppliers for quality, delivery, and price
- Plan and determine resources needed to support future customer needs
- Document and determine pricing for quotes
- Purchases materials needed to fulfill current orders
- Maintains records of purchasing transactions
- Control and monitor supplier effectiveness and reviews
- Perform Risk Management and initial Project Management
- Control all configuration methods
- Determine and review all requirements needed for each product
- Handle all customer communication pertaining to sales, quoting, and orders
- Maintains inventory control system

Accounting Manager/HR

- Control all incoming and outgoing checks
- Reports payroll hours to outsourced payroll company
- Audits invoices against purchase orders, and approves for payment
- Reconciles general ledger accounts with various registers
- Compiles cost reports, revenue, and balance sheets
- Facilitates new employee selection, entry, and exit for the company
- Administers performance reviews and documentation
- Provides employee documentation to outsourced payroll company
- Responds to inquiries regarding policies, procedure, and programs
- Keeps records of benefit plan participation for all employees

Administrative Assistant

- Answers incoming calls and ensures that customers are taken care of effectively and in a timely manner and records messages as required
- Greets and assists visitors
- Keeps inventory and purchases office supplies
- Assists in processing all incoming quotes
- Enters Purchase Orders into the computer ensuring that correct customer Blueprint is obtained per customer specifications and filed electronically
- Controls shipments of jobs including scheduling deliveries and billing jobs
- Filing hardcopy and electronic documents
- Assist management with projects as needed
- File and maintain all electronic and hard copy of certifications including raw material, outside processing, and purchased parts
- Maintain Quote Log and follow through

Plant Manager

- Monitors production personnel and ensures they are performing their job requirements
- Ensures that all paperwork is filled out properly
- Oversees the daily production schedule to ensure on-time deliveries
- Monitors and documents any necessary training and ensures competence levels in specific roles.
- Participate in Management Review Meetings
- Implements and continuously reviews QMS commitment with production employees
- Ensures Preventive Maintenance and 6S Programs are completed and turned in on time monthly
- Ensures Safety Observations are completed and turned in on time monthly

Quality Assurance

- Maintains system for calibrated measuring equipment and devices to ensure proper conformance
- Perform First Piece and Final Inspection
- Performs FAIR

- Maintains Quality Records including FAIR, Material Certification, Final Inspection Reports
- Monitors the status of non conforming product and materials including proper identification and segregation to prevent unintended use
- Documents and records all incidents to Quality Management Representative
- Controls all incoming and outgoing work transfers, documentation, and inspections
- Controls and documents any customer changes once order is in process
- Monitors and protects customer property when needed

Production Personnel

- Performs job set up and production trial runs
- Identifies and reports any problems relating to the product, process, equipment, measuring devices or other aspects of the quality system relating to shipping and receiving functions
- Directs movement of material to next processing step
- Completes appropriate records of production such as Job Travelers
- Maintains production equipment and tooling
- Identifies and reports any problems during the production process relating to the product, process, equipment, measuring devices or other aspects of the QMS
- Marks or verifies material and product identification
- Stops production due to nonconforming products and informs Quality Assurance or Management Representative.
- Delivers first piece to Quality Assurance for inspection
- Delivers product to Quality Assurance for final inspections of finished product
- Maintains WIP and Final counts
- Ensures conformance to customers' requirements through timely and accurate inspection
- Follows instructions provided for processing
- Ensures identification and status is marked at all times
- Reports non-conformance instances to Quality Management Representative and Quality Assurance
- Maintains a safe and orderly work environment using proper protective equipment
- Uses only authorized and approved inspection and measuring equipment
- Maintains and notifies the Quality Assurance of changes in status of measuring and test equipment
- Comply with organization rules

Shipping/Receiving

- Maintains shipping and delivery records
- Keeps storage areas identified and organized
- Performs inspection of incoming material, as applicable
- Directs movement of material to proper processing, staging, or storage area
- Arranges and packages finished product for shipment
- Ensures all products ready for shipment are authorized with the necessary approval
- Directs labeling of material and product
- Packs and labels finished product

Internal Auditors

- Plan, conduct, record, and report findings of internal audits of the QMS to the Quality Management Representative according to the audit plan.

5.5.2 Management Representative

The organization's Top Management appoints a member of its management team as the Management Representative of the QMS. The responsibilities of the Management Representative include the following:

- Ensures that the processes that comprise the QMS are established and maintained in accordance with the International Standard
- Reports to Top Management on the performance of the QMS including opportunities for improvement
- Promotes the awareness of customer requirements throughout the organization
- Performs liaison with external parties in matters relating to the QMS
- Has the organizational freedom to resolve matters pertaining to quality
- Maintains the Incident Log and reviews for trends and corrective actions
- Handles customer complaints, as applicable
- Conducts QMS Roles and Responsibility Awareness Training for all employees
- Makes disposition decision on returned product
- Selects methods for process performance monitoring
- Handles nonconforming products including the decision to stop production
- Monitors trends in quality performance metrics
- Ensures that the processes that comprise the QMS are established and maintained in accordance with the International Standard
- Performs liaison with external parties in matters relating to the QMS
- Has the organizational freedom and unrestricted access to top management to resolve matters pertaining to quality management issues.
- Schedules the regular reviews of the QMS
- Maintains the Master List of QMS documents

- Provides direct contact to the ISO 9001C registration body and third party auditor
- Monitors and reports the status of the effectiveness of the QMS to Top Management
- Establishes and maintains the QMS
- Participates in the approval and disapproval of approved suppliers
- Participates in the identification of root causes of nonconformance found by internal auditors and maintains a record of these nonconformance incidents
- Selects and arranges for training of internal auditors
- Manages internal audits of implementation and effectiveness of the QMS
- Reviews Level 1 documents
- Reviews and approves Level 2, Level 3, Level 4 documents

5.5.3 Internal and External Communications

J & J SPRING ENTERPRISES, LLC promotes communication between its various levels and functions regarding the processes of the QMS and its effectiveness. Internal and external communications are established and maintained by procedures that provide for receiving, documenting, and responding to relevant communication from customers. Training, team problem solving, posted internal information, job specific instructions and daily direction are provided to support the organization's activities pertaining to communication.

5.6 Management Review

5.6.1 General

Top Management of J & J SPRING ENTERPRISES, LLC holds annual reviews of the QMS. The review considers the suitability, adequacy, and effectiveness of the QMS including the Quality Policy and Quality Objectives. Changes are evaluated to the QMS where a need for improvement is determined to exist.

5.6.2 Review Input

The Management Review agenda includes the following:

- Results of audits
- Customer feedback
- Process performance and product conformance
- Status of corrective and preventive actions
- Follow-up actions from earlier Management Reviews
- Changes that could affect the QMS
- Changes to the Quality Policy and Quality Objectives
- Commitment to continual improvement

5.6.3 Review Output

The output of the Management Review includes the following:

- Improvement of the QMS and its processes
- Improvement of the product related to customer requirements
- Resource needs

The results of the Management Review are recorded in minutes that are used as a means of internal communications pertaining to the QMS.

5.7 Related Documents

QDC-304	Order Review Form
NFN	Job Traveler
QDC-195	Minutes of the Management Review Meeting

SECTION 6
Resource Management

6.1 Provision of Resources

J & J SPRING ENTERPRISES, LLC management team determines needed resources required for the implementation, control, and effectiveness of the QMS. J & J SPRING ENTERPRISES, LLC uses business planning and job specific quality planning activity. Following their identification, J & J SPRING ENTERPRISES, LLC, General Manager/VP Operations provides needed resources in a timely manner in order to:

- Implement and improve the processes of the QMS
- Address the customer's satisfaction through meeting the customer's requirements

6.2 Human Resources

Human resources are understood to be a vital ingredient in the formula for success in meeting the goals of the organization's QMS. The continual improvement process includes the development of the organization's human resources in order to reach the highest levels of efficiency, productivity, and teamwork by all individuals affecting quality.

6.2.1 Assignment of Personnel

Individuals are assigned roles and responsibilities within the organization's QMS. Individuals have appropriate aptitude, skills, experience, and training, as determined by the General Manager/VP Operations or designee.

6.2.2 Training, Awareness, and Competency

J & J SPRING ENTERPRISES, LLC the General Manager/VP Operations identifies the competency needed by individuals performing the various processes having an effect on the quality of its products. Individuals assigned to perform the activities affecting quality have sufficient knowledge, training, skills, and ability to meet or exceed the task requirements. General Manager/VP Operations provides training for individuals in order to ensure their performance is maintained at an acceptable level in compliance with the organization's QMS, along with its Quality Policy and Quality Objectives. The effectiveness of training is regularly reviewed and evaluated by the organization's management.

Procedures are established by J & J SPRING ENTERPRISES, LLC that promote the awareness of the importance of each employee, level, and function in meeting the Quality Policy and Quality Objectives of the organization. Through on-going training and internal communication of the Quality Policy and Quality Objectives of the QMS, applicable portions of the QMS are explained. Records of training, education, experience, skills, and other qualifications are maintained by the organizations, HR Department.

6.3 Facilities and Infrastructure

J & J SPRING ENTERPRISES, LLC the GM identifies, provides for, and maintains facilities as required to achieve conformity of its products in order to satisfy its customers. Resource requirements include workspace, equipment, hardware and software, supporting services, and associated facilities. The General Manager/VP Operations regularly reviews the state of the facilities along with its current and future ability to meet its Quality Objectives.

6.4 Work Environment

The Plant Manager identifies and manages the human and physical factors of the work environment as necessary to achieve product conformity and conformance to the QMS requirements. Clean, orderly, and safe working conditions are maintained through good management practices and monitored by the organizations internal audit program.

SECTION 7
Product Realization

7.1 Planning of Realization Processes

Product Realization is the sequence of processes and sub-processes that is required to achieve the product. Planning for Product Realization activity begins when the job is quoted and preliminary feasibility and risk are assessed. As planning is accomplished it is suitably documented by the work order and the Traveler. The results of the planning of realization processes are the following as appropriate:

- Defined quality objectives for the product. For aerospace compliance include the following aspects: (AS)
    - Product and personal safety
    - Reliability, availability, and maintainability
    - Producibility and inspectability
    - Suitability of parts and materials used in the product
    - Selection and development of embedded software
    - Recycling or final disposition of the product at the end of its life
- All process and documentation requirements identified
- Provision for the resources needed (see organization's purchase orders and the training matrix)
- Acceptance criteria for the necessary verification and validation activities
- Records to prove conformity of the processes and resulting product (see completed work order)
- Identification of resources to support the operation and maintenance of the product as appropriate
- Configuration management appropriate to the product (AS)
- Resources to support the use and maintenance of the product (AS)

7.1.1 Project Management (AS)

The company plans and manages product realization in an appropriate method documented in the procedures. The controls provided ensure the company meets the customers' requirements at an acceptable level of risk within resource and schedule constraints.

7.1.2 Risk Management (AS)

Risk management is established, implemented, and maintained through a process with the main objective to achieve the requirements of the company and its products. The

Product & Sales Engineer is assigned the responsibilities for risk management. Risk criteria related to the product or the company's process is assessed using QDC-304 Order Review form, additional QDC-685 Risk Assessment Evaluation Worksheet, and QDC-819 Aerospace Risk Assessment for all aerospace companies. When the risk acceptance criteria has been exceeded, the product or process receives consideration for improvement or mitigating actions. Improvement or mitigating actions may be communicated through the Risk Assessment Check Sheet, Job Traveler, Job Notes, or documented evidence added to the job packet or job notes. Following implemented mitigating actions, the company accepts the remaining level of risk with an eye on continued improvement opportunities discussed during the regular Management Review Meetings of the QMS.

7.1.3 Configuration Management (AS)

Following guidance from ISO 10007, the company has established and maintains a configuration management system as documented.
Configuration Management **that is appropriate to our product. Configuration Management includes:**

- Planning
- Identification
- Change Control
- Status accounting
- Configuration audits

7.1.4 Control of Work Transfers (AS)

The company plans and controls the temporary or permanent transfer of work through the job planning provisions explained in. Product conformity is confirmed by the quality department prior to shipment to the customer.

7.2 Customer-related Processes

7.2.1 Determination of the Requirements Related to the Product

Product requirements are determined initially at the time the job is quoted but reviewed as part of the Contract Review and acceptance. These include the following:

- Customer specified requirements including availability, delivery, and support
- Requirements unspecified by the customer but necessary for the intended use
- Regulatory and legal requirements
- Any additional requirements determined by the organization

7.2.2 Review of the Requirements Related to the Product

The requirements of the product are reviewed by the General Manager/VP Operations or Product & Sales Engineer to determine if they can be met prior to acceptance of the customer's order. The review ensures that the product requirements including special requirements of the product have been adequately defined and confirmed even when no documented requirements are provided. Risks are also evaluated such as the impact of new technology and short lead time for delivery.

When the order requirements vary from the quotation, the differences are resolved with the customer. The results of the review and follow-up actions are recorded on the Order Review form QDC-304. Changes to the product requirements are likewise reviewed and the relevant documentation is amended. Relevant personnel are notified of changes to the product requirements.

7.2.3 Customer Communication

Suitable arrangements for communications with the customer are identified and used relating to:

- Product information (see Order Review)
- Inquiries, contracts and amendments to orders (see quote records and master list for quotations)
- Customer feedback including complaints (see incident log)
- Notification of lost or damaged customer supplied properties (see incident log)

J & J SPRING ENTERPRISES, LLC effectively communicates with customers at key stages of each order. Product requirements are acknowledged, job special requirements are confirmed following order review. Customer Feedback is effectively managed and recorded from Management Review.

7.3 Design and Development

Product design and development falls outside the scope of the QMS of J & J SPRING ENTERPRISES, LLC.

7.4 Purchasing

7.4.1 Purchasing Control

J & J SPRING ENTERPRISES, LLC applies controls to purchasing activities in order to ensure purchased products and services conform to the specified requirements including on-time delivery at competitive prices. These controls include the review and approval by

authorized levels of management for all purchasing transactions including with supplier designated by the customer prior to issuance of a purchase order or service pack list to the supplier.

The organization follows selection criteria for suppliers which includes an accredited Quality Management System certificate or a plan for compliance to the appropriate quality standards. If customer designated, the supplier is monitored for the same performance as any other J & J SPRING ENTERPRISES, LLC supplier through an annual performance re-evaluation. Supplier performance is monitored for on-time delivery, conformance to specified requirements, and competitive prices. The effectiveness of the purchasing process and its controls are measured by the grades assigned to the suppliers who comprise the Approved Supplier List. This list includes raw material suppliers, outside processing service providers, outsource spring manufacturers, and calibration service providers. These are the suppliers who have significant effects on the subsequent Product Realization processes and their output.

The company's purchasing controls include:

- A register of approved suppliers including the scope of their applicable business. Suppliers with a history of acceptable performance in place before the quality system was established in March 2010 may be "Grandfathered" to the Approved Supplier List, but are designated as such.
- Periodic performance reviews of suppliers are to be used as the basis of controls and supplier development this includes a Risk Assessment.
- When necessary for suppliers that do not meet performance inspections, a request for corrective action may be initiated or at a minimum, the Approved Supplier List will note that the supplier needs improvement which may lead to removal from the list following a subsequent management review of supplier performance.
- Required use of customer approved suppliers for special processes by J & J SPRING ENTERPRISES, LLC and its suppliers supported by re-evaluation of quality and delivery performance and notification to the customer who designated this supplier in the event of unacceptable performance in either quality or delivery.
- The General Manager/VP Operations with the assistance of the Product & Sales Engineer has the authority to approve and disapprove the use of suppliers.

- During the supplier evaluation and approval process, risks are determined and adequate controls are applied as appropriate including incoming inspection criteria, supplier development actions, and alternative sources of the same material or services as indicated as mitigating actions in the Approved Supplier List.

The quality of the purchased product is the responsibility of J & J SPRING ENTERPRISES, LLC, including customer designated sources.

7.4.2 Purchasing Information

Purchasing documents contain information to sufficiently describe the product being purchased including, where appropriate, the following:

- Requirements for approval of product, procedures, processes, or equipment
- Qualification of personnel
- Requirements of the QMS
- Name or other identification and applicable issues of drawings and specifications, inspection instructions, process requirements, and other relevant technical data
- Requirements for design, test, examination, inspection, and other related instructions for acceptance by the company.
- Requirements for test specimens
- Requirements related to supplier notification of non conformance to the company and the arrangement for the company's approval of non conforming material.
- Requirement for the supplier to notify the company of product and process definition changes and the means of getting the company's approval where required.
- Access of the company and its customer into the supplier's facility and access to all applicable records
- Supplier record retention requirements
- Requirement for the supplier to flow down to its suppliers all applicable requirements of the purchasing documents including key characteristics as applicable.

Information for purchasing transactions is reviewed by the General Manager, Product & Sales Engineer or designee prior to release to ensure it adequately specifies the requirements of the products or services being procured. The Purchase Orders and Service Pack Lists contain an authorized signature.

7.4.3 Verification of Purchased Product

Quality Assurance provides direction for incoming material verification. The organization performs an initial inspection for obvious damage at the receiving location. Shipping &

Receiving verifies all stock as it is delivered to production or the store room. Approved or rejected is consistent with the criteria established by the purchasing process.

Verification activity may be performed at the organization or at the supplier's premises as specified in the verification arrangements and method of product release contained in the purchasing information. Where specified in the contract, the customer or the customer's representative is afforded this right as well as access to J & J SPRING ENTERPRISES, LLC. Customer verification in itself is not evidence of effective control of quality by the supplier and does not relieve the company from responsibility to provide an acceptable product nor preclude subsequent rejection by the customer of non conforming product.

Verification may include:

- Obtaining objective evidence of the quality of the product from the supplier
- Inspection or audit of the supplier's facility
- Review of the required documents
- Incoming inspection of the product
- There is no J & J SPRING ENTERPRISES, LLC delegation of verification to the supplier or supplier certificate

Purchased product may be used pending completion of all required verification activities but it must be identified and recorded to allow recall and replacement if it is subsequently found to be non-conforming. When test reports are used to verify incoming product or materials, the company may check the data of the reports to the relevant specification. In addition, the company periodically may validate test reports for raw material. J & J SPRING ENTERPRISES, LLC does not delegate finished product verification to any supplier.

7.5 Production and Service Provision

7.5.1 Control of Production and Service Provision

Operations are controlled through the following measures:

- Availability of information that specifies the characteristics of the product through the quality plans found in the Job Traveler
- Availability of work instructions contained in the Job Traveler
- Final packing and shipping instruction contained in the Job Traveler

- Workmanship samples and visual aids issued by the General Manager/VP Operations and Quality Assurance
- Use and maintenance of suitable equipment
- Availability and use of capable measuring and monitoring devices controlled by the organization's calibrated devices control system
- Implementation of monitoring activities as planned and directed in the Job Traveler
- Use of work orders, labels, and shippers to authorize the release, delivery, and post delivery activity, as applicable
- Accountability for all products during manufacturing
- Evidence that all process steps and checks were accomplished according to specified requirements
- Provision for the prevention, detection, and removal of foreign objects
- Monitoring and control of utilities to the extent they affect the product
- Workmanship standards stipulated in the clearest manner to the inspectors

Planning controls considers the following:

- Establishment of process controls and control plans where key characteristics have been identified
- Identification of in-process inspection points where adequate verification cannot be performed at later stages of the product realization process
- Design, manufacture, and use of tooling so that variable measurements may be taken especially for key characteristics
- Consideration of Special Processes
- J & J SPRING ENTERPRISES, LLC carries out production operation according to approved data such as customer drawings and specification. Each job has a packet of information which includes a Job Traveler, Order Review form, Inspection Sheet, and customer drawings when available. In addition, tooling and NC programming information is provided as applicable.

7.5.1.1 Product Process Verification (AS)

The company uses a representative item from the first production run of a new part to verify production process, documentation, and tooling are capable of producing parts that meet the requirements of the job. This activity is repeated when changes occur that invalidate the original results such as when design and engineering changes, manufacturing process changes, or tooling changes occur.

7.5.1.2 Control of Production Process Changes (AS)

The General Manager/VP Operations, Product & Sales Engineer or designee is authorized to approve changes to the production process. When required by contract or regulatory requirement, the General Manager/VP Operations or Product & Sales Engineer receives approval from the customer or regulatory body in advance of required change to the production process. Changes affecting production processes, tooling, programs, and equipment are documented in the job history.

7.5.1.3 Control of Production Equipment, Tooling, and NC Machine Programs

Production Equipment, tooling, and NC machine programs are validated prior to use (according to first article inspection and approval by Quality Assurance), maintained and inspected periodically. The General Manager/VP Operations and Quality Assurance are ultimately responsible for the proper maintenance, storage and use of equipment, tooling, and NC programs in order to maintain product quality. Tooling and Equipment in storage is checked periodically for its condition and level of preservation as applicable.

7.5.1.4 Post-Delivery Support (AS)

Post Delivery Support provides as applicable for the following:

- Collection and analysis of in-service data
- Actions to be taken, including investigation and reporting, when problems are detected after delivery
- Control and updating of technical documentation
- Approval, control and use of repair schemes
- Controls required for off-site work such as the company's work undertaken at the customer's facility.

7.5.2 Validation of Processes

Validation of the process is performed when subsequent measuring or monitoring cannot verify the resulting output and deficiencies become apparent only after the product is in use.

The General Manager/VP Operations and Quality Assurance determine when validation is required and indicates this on the job instructions for each job.

Validation demonstrates the process achieved its planned results. Validation arrangements may include as applicable the following:

- Qualification of the process by prove-out or simulation actions including the qualification and approval of special process prior to use
- Qualification of the personnel and equipment

- Use of defined methodologies and instructions including controls of significant operations and parameters for special processes in accordance with documented special process specifications and changes thereto.
- Use of records to support requirement
- Re-validation with changes. Re-validation consists of a review by the General Manger/VP Operations and Quality Assurance of how the change affects the special process followed by an update to the special process information. The update to the special process information may include any or all of the above arrangements.

7.5.3 Identification and Traceability

Where appropriate, the product is identified by suitable means throughout the production processes. Identification includes differences between the actual and agreed configuration of the product. The status of the product with respect to measurement and monitoring requirements is likewise suitably identified.

Where traceability of the product is a requirement, the organization keeps adequate controls and records to ensure that the unique identification of the product can be retrieved. Traceability includes the following aspects:

- Traceability when required is available for the entire product life through the customer files
- Batch traceability including all destinations supplied by the batch or lot is included in the customer files
- Components of the assembly produced and the next higher assembly resulting are included in Job Boss
- A sequential record of the steps of product realization is provided in the Job Traveler
- The organization shall identify the product status with respect to monitoring and measurement
- The company maintains acceptance authority media such as inspection stamps and electronic signatures. These are controlled by the General Manager with the assistance of the Document Control Specialist. He issues these in the form of a letter that is filed in the Management Representative QMS notebook

7.5.4 Customer Property

Customer property, provided for use or incorporation into the product including intellectual property, is carefully managed including its identification, verification,

protection, and maintenance. If customer property is lost, damaged, or otherwise found unsuitable for use, it is recorded in the incident log and the customer file and reported to the customer.

7.5.5 Preservation of Product

The product is preserved to conform to the specified requirements during all stages of processing and delivery to the intended destination. Preservation activity includes the identification, handling, packaging, storage, and protection of the product and its constituent parts.

Preservation includes:

- Cleaning
- Prevention, detection and removal of foreign objects
- Special handling of sensitive products
- Marking and labeling including safety warnings
- Self life control and stock rotation
- Handling of Hazardous Materials
- Documents required to accompany the product by requirements of the contract are present at delivery and protected against loss or deterioration

7.6 Control of Measuring and Monitoring Devices

Quality Assurance ensures that measurements required and the devices that are used to assure conformity of the product to the specified requirements are identified, used, and controlled. The company uses Pro-Gage Software to maintain a registry of these devices as well as the method of calibration and checks the accuracy of the devices. The software includes sufficient identification for devices, defined intervals of calibration checks, location, acceptance criteria for device checks, and checking methods.

Measurement capability is consistent with the measurement requirements determined for the affected product characteristics. Where applicable, measuring devices satisfy the following:

- Receive regular or periodic calibration and adjustment against devices traceable to international or national standards or an otherwise recorded basis for the calibration method used
- Safeguard from adjustments that would invalidate the calibration
- Protected from damage or deterioration during handling, maintenance, use, and storage

- Have a record of results of calibration
- When the device is found to be out of calibration, the validity of previous results is re-assessed following effective corrective action
- Recall for calibration for equipment requiring calibration or verification
- If required by the contract, software used for measuring and monitoring specified requirements is validated prior to use

Quality Assurance ensures that measuring and monitoring devices are kept under suitable environmental conditions for calibration, inspection, measuring, and testing.

SECTION 8
Measurement, Analysis, and Improvement

8.1 General

The organization plans and implements the monitoring, measurement, analysis, and improvement processes with applicable methods including statistical techniques if appropriate in order to:

- Demonstrate the conformity of the product
- Ensure conformity of the QMS
- Improve the effectiveness of the QMS

The company employs QMS Performance Objective Trend Charting, Failure Mode Analysis and selection / inspection of key characteristics as the major application of statistical techniques.

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

The organization monitors information relating to the customer's perception of the organization's effectiveness in fulfilling the customer's requirements. An annual survey is used to establish the customer's assessment of the organization's performance in the areas relating to its Quality Objectives. The organization maintains a record of on-going customer feedback. This information is reviewed during Management Review meetings.

(AS) In addition, the company monitors on-time delivery performance, customer feedback, customer services responsiveness, corrective actions, cost of delivery, and

vendor on-time deliveries. As a result of this monitoring, the company develops and implements plans for improving the level of customer satisfaction as necessary. The effectiveness of improvement plans are evaluated as part of the management review of the QMS.

8.2.2 Internal Audit

The organization uses an internal audit program to evaluate the sustained effectiveness of the QMS. Internal audits establish the conformance to the planned arrangements established by the organization's QMS and the requirements of the International Standard and any other contractual or regulatory requirements. Internal audits and the acceptability of the tools used are measured against the effectiveness of the company's QMS objectives.

The audit program is completed at least annually with the plan for internal audits considering the status and importance of the processes and areas audited as well as the results of previous audits.

The audit plan defines the audit criteria in terms of information to be gathered. The scope and frequency as indicated in the audit plan directs the assigned auditor who is selected to ensure impartiality and objectivity in the audit.

The audit results are reported to the Quality Management Representative for action without undue delay.

The corrective action addresses the root cause of the nonconformance observed in order to eliminate a re-occurrence. Corrective actions are reviewed, verified for effectiveness, and reported by the Internal Auditor.

The regular Management Review of the QMS provides for a review of the results of the internal audits.

8.2.3 Monitoring and Measuring of Processes

The Management Representative ensures suitable methods to determine if the product, processes, and QMS have achieved the planned results. If the planned results have not been met, corrective action is taken as appropriate. In addition to corrective action, the company evaluates if the process non conformity resulted in product non conformity and whether the non conformity is limited to a specific instance or whether it could have

affected other products or processes. Monitoring equipment is suitably calibrated and recorded.

8.2.4 Monitoring and Measuring Product

The organization measures the characteristics of the product that are established in the quality planning for the job. When key characteristics are identified by the customer they are monitored and controlled as agreed in the customer specific requirements.

Measurements are carried out at appropriate stages of the realization process. When sampling plans are used, they must be statistically valid and appropriate for the use and acceptance of lots with known non-conformances. When required sample plans are submitted to the customer for review and approval, evidence of conformance is documented in the job records. The records indicate the person authorizing release of the product or process to the next stage of product realization. All documents are required to accompany the product and must be present at the time of delivery.

Products are not released to the customer without satisfactory completion of the measurements prescribed for the product unless approved by the General Manager/VP Operations or a designee. The General Manager/VP Operations may authorize an exception to this rule. He may allow release of the product under positive recall pending completion of the required measuring, monitoring, and testing.

8.3 Control of Non-Conforming Product

Product that does not conform to the requirements is identified by suitable means with tags or labels. Non-conforming product is controlled to prevent its unintended use or delivery to the customer.

Non-conforming product that is returned from a customer is placed in the Non-conforming area labeled with a Rejected tag identified with appropriate documented information until final disposition has been determined.

The organization addresses nonconforming product in the following ways:

- Takes action to eliminate the non-conformance

- Authorizes disposition as: Use, Scrap, Release with concession by authority of the General Manager/VP Operations, a designee, or the customer where applicable
- Scrap must be permanently marked and positively controlled until rendered physically unusable
- Takes action to preclude the original intended use or application of the non-conforming product
- Re-verifies corrections made to non-conforming product to demonstrate conformity to requirements
- Takes appropriate action when nonconforming product is detected after delivery to the customer depending on the effect or potential effect of the nonconformance
- Provides timely notification to affected parties of delivered non-conforming product that may affect reliability or safety
- This notification includes:
    - A clear description of the non-conformity
    - Customer
    - Quantity
    - Part Name and Number
    - Delivery Date

The organization records the nature of nonconformances and subsequent actions taken including concessions agreed upon with the customer on an Incident Report and submits to the Quality Management Representative along with:

- Taking action to mitigate any impacts caused
- Initiating and completing corrective and preventive actions (including documenting changes) pertaining to its quality management activities

8.4 Analysis of Data

The organization determines what data demonstrates the suitability and effectiveness of the QMS. The data is collected, analyzed, and used as a basis for improvement action plans for the QMS. The organization's analysis of data supports the assessment of the following key areas of performance:

- Customer satisfaction
- Product quality (Conformity) such as product characteristics as defined in the job's quality plan
- Performance trends
- Opportunities for improvements and preventive action

- Supplier performance

8.5 Improvement

8.5.1 Continual Improvement

The organization uses the Quality Policy, Quality Objectives, audit results, analysis of data, corrective and preventive actions, and the Management Review as a means of continually improving the QMS. With new activities or technologies, appropriate changes to the QMS are implemented.

The organization monitors the implementation of improvement actions and evaluates the effectiveness of the results.

8.5.2 Corrective Action

Corrective action is taken to eliminate the cause of a non-conformance in order to prevent a recurrence. Corrective action is appropriate to the effects of the non-conformance.

Corrective Action, defines the requirements for:

- Review of non-conformance
- Root cause analysis
- Evaluation of the need for action
- Planning and implementing the action
- Recording the results of the action
- Review of the completed corrective actions with an eye on the effectiveness
- Flow down to a supplier when the supplier is determined to be the root cause
- Specific actions when initial corrective action are found to be ineffective
- Determining if additional non-conforming product exists based on the cause of the non-conformance and taking further actions as required

8.5.3 Preventive Action

Potential non-conformances are considered. Appropriate preventive actions are taken where the effects of potential problems are important.

Continued Improvement and Preventive Action establish the requirements for:

- Determining potential nonconformances and their causes
- The need for actions to prevent occurrences of non-conformances and their implementation

- Review effectiveness
- Documentation

8.6 Related Documents

QDC-123	Master Document Control List – Procedures
QDC-223	Master Document Control List – Forms & Records
QDC-124	Master Document Control List – Work Instructions & Flow Charts