QUALITY MANAGEMENT SYSTEM

GUIDE

AMENDMENT RECORD

To record an amendment in this document, list affected pages with an explanation in the change in the description column, record the date, and initial as having incorporated the amendment into the document.

REV. NO.	AFFECTED CLAUSES	DESCRIPTION	REV. DATE	APPR. BY

MANUAL CERTIFICATION

We hereby certify that this Quality Assurance Policy Manual, written in conformance to ISO 9001, accurately describes the quality system in place within

_____ _____

Date

President

_____ _____

Date

Quality Control Manager

1. SCOPE

The scope of quality system is: “Machining, assembly and test of aircraft, military and commercial components.”

The quality system described within this manual establishes the total (Company) quality policy. The manual as written, addresses the requirements of ISO 9001 with exclusion to Section 7.3, Design & Development. The justification for the exclusion is that (Company) does not perform design.

The manual also serves to direct the user from the policy statements to the procedures required to implement the policies.

2. RELATED DOCUMENTS

Documents related to this policy document include:

- Procedures with the prefix "QAP" and other procedures referenced within this document.
- Forms used in conjunction with this policy.

3. TERMINOLOGY

3.1 Quality Policy

Policies on issues affecting quality.

3.2 Quality Procedure

Directions for implementing a Quality Policy.

3.3 Quality Management System

A structured approach to ensure that services are provided to our customers in a satisfactory manner.

4. QUALITY MANAGEMENT SYSTEM

4.1 General Requirements

This quality management system has been created, is being maintained, is implemented and its effectiveness will be continually improved to achieve compliance with ISO 9001 and meet customer specific requirements.

The flowchart along with referenced procedures in Appendix 2 shows the order and interaction of the quality management system processes. The criteria and methods for effective control of processes are found in internal audit procedures and process sheets. The information necessary for effective operation and monitoring of these processes is found within available controlled documents throughout the company. Upon the completion of measurement and monitoring of the processes and analysis of the data, appropriate action is taken to assure intentions are achieved and opportunities for improvement are acted upon.

Management of these processes is accomplished in accordance with the requirements of ISO 9001.

Outsourced processes, having impact on the achievement of product or service requirements, are controlled in accordance with Section 7.4, Purchasing.

Major changes affecting the quality management system (e.g. Ownership changes, Manufacturing location changes, Process or inspection techniques changes) shall be documented and communicated to the applicable customer prior to effectivity of the changes.

4.2 Documentation Requirements

4.2.1 General

Tthe following documents has been included in its quality management system:

- Statements of quality policies and quality objectives.
- This quality policy manual.
- The documents referred to in this quality policy manual.
- Any documents required to avoid varied implementation of the processes needed to deliver our services.
- The records described in Quality Records QAP 4.2.4.
- The quality system requirements imposed by the applicable regulatory authorities.

Management will ensure that personnel have access to quality management system documentation and are aware of relevant procedures. Customer and/or regulatory authority representatives will have access to quality management system documentation.

4.2.2 Quality Manual

This quality manual contains:

- A scope statement with exclusions.
- Reference to the quality management system procedures.
- A flowchart that describes the interaction within the quality management system for the services offered. See Appendix 2 for the flow chart.

4.2.3 Control of Documents

Documents required by the quality system shall be controlled. Quality records shall be controlled as per Section 4.2.4 of this manual.

The procedure for Document Control QAP 4.2.3 shall define the following controls:

a. Document approval for adequacy prior to issue.
b. Revisions and updates and re-approval of documents, as necessary.
c. Change controls and revision status.
d. Availability of relevant versions of documents at points of use.
e. Legibility and identification of documents.
f. Identification and distribution control of documents of external origin.
g. Prevention of the unintended use of obsolete documents, applying suitable identification if the obsolete documents are retained.

Production and/or Project Manager shall coordinate document changes with customers and/or regulatory authorities in accordance with contract or regulatory requirements.

4.2.4 Control of Records

The requirements for the control of records are found within the Quality Records QAP 4.2.4 procedure. Specific relevant records have been identified within that procedure. All data supporting the achievement of requirements and effectiveness of the quality system are included as records.

QP-4241.DOCThe procedure shall define the method for controlling records that are created and/or retained by suppliers. Records shall be available for review by customers and regulatory authorities in accordance with contract or regulatory requirements.

4.3 Configuration Management

The procedure for Document Control QAP 4.2.3 outlines the configuration management process appropriate to the parts produced.

5. MANAGEMENT RESPONSIBILITY

5.1 Management Commitment

The following are expressions of management commitment to develop, implement and improve the effectiveness of the quality management system:

- Communication about the importance of fulfilling customer, legal and regulatory requirements occurs throughout the company. That communication happens through the use of:
  - General and specific training.
  - Retraining when and where shortfalls appear.
  - Displays and postings in high traffic areas.
- The quality policy (see Section 5.3).
- The quality objectives (see Section 5.4.1).
- The management review records.
- Ensuring the availability of resources.

5.2 Customer Focus

Management assures that all customer requirements will be uncovered through the processes described in Section 7.2 in this quality manual. Through all of the policies, objectives and processes described in this quality manual, Management assures an environment exists to consistently meet the customer requirements.

5.3 Quality Policy

Having given due consideration to:

- The purpose of the company,
- The need to include a commitment for compliance to requirements and to continually improve the effectiveness of the quality management system, and
- The required continual compatibility with quality objectives,

A quality policy statement has been formulated by Management and can be found below. It is also prominently displayed at strategic locations throughout the company. The quality policy reads as follows:

Quality Policy

It is the policy of (Company) **to provide products and services that conform to customers' requirements & deliver them on time at a competitive price. Our name must represent quality to our vendors, our customers, & ourselves.**

At (Company)**, management is committed to maintaining and continuously improving the quality of our services by effectively controlling all activities to ensure that all quality system requirements, including AS9100 Rev. B, are being fulfilled.**

This quality policy is communicated to all employees. Employees at all levels of the organization are expected to fulfill the requirements of this policy in all of their work related efforts and decisions.

The quality policy is reviewed at least annually for suitability at the management review.

5.4 Planning

5.4.1 Quality Objectives

Management has formulated measurable quality objectives that are found in the Quality Objectives document.

The objectives are to be measured and evaluated at the management review.

5.4.2 Quality Management System Planning

Employees, responsible for the creation of quality system documents, are required to consider the following as they create those quality system documents:

- The quality objectives in Section 5.4.1.
- The general requirements in Section 4.1.

When significant changes occur in categories such as the organization, the facilities or business strategy, a meeting is summoned to discuss the changes and to assure integrity and compatibility of the quality management system.

5.5 Responsibility, Authority And Communication

5.5.1 Responsibility And Authority

The Organizational Chart (Appendix 1) and the descriptions noted below illustrate functions, their interrelations, responsibilities and authorities relevant to the quality management system. More specific quality management system responsibilities and authorities can be found in job descriptions, procedures and flow charts associated with services provided. Appropriate distribution of these documents and associated training assures clear communication of this information. The responsibilities for management are as follows:

a. The President and Vice President of (Company), members of Executive Management, are responsible for:

   i. Directing company policies.
   ii. Approving capital expenditures.
   iii. Overseeing company's operations.
   iv. Business planning.
   v. Approve quality objectives.
   vi. Quotations, sales and customer relations.

b. The Office Manager reports to Executive Management and is responsible for:

   i. All administration and accounting functions at (Company)
   ii. Human resources and training.
   iii. All financial and legal matters that concern the company.
   iv. Purchasing of subcontracted processes and office supplies.

c. The Production Manager reports to Executive Management and is responsible for:

   i. Planning & scheduling production.
   ii. Overseeing the production system.
   iii. Supervising & organizing production.
   iv. Providing technical support to production.
   v. Assuring the proper functioning of the company computer system.
   vi. Purchasing of raw material, subcontracted processes, equipment, tools and supplies.

d. The QC Manager reports to Executive Management and is responsible for:

   i. Reporting quality performance to management for review and as a basis for improvement of the system.
   ii. Auditing of quality system annually to ensure that manual and procedures are current and being followed.
   iii. Overseeing the inspection of products.
   iv. Ensuring that training and inspection equipment are sufficient for the tasks to be performed.
   v. Initiating action to prevent occurrence of product, process or quality system nonconformities.
   vi. Ensuring that the quality system is established, implemented, and maintained in accordance with AS9100 Rev. B.
   vii. Interfacing with customer quality representatives.
   viii. Supervising and motivating inspectors.

e. The Project Manager reports to Executive Management and is responsible for:

   i. Project management.
   ii. Process planning.
   iii. Dealing with customers.
   iv. Verify that production schedules are being met.
   v. Purchasing of computer equipment.

f. The Chief Inspector reports to the QC Manager and is responsible for:

   i. Assigning work to inspectors.
   ii. Providing guidance and assistance to inspectors.
   iii. Dealing with customers/suppliers to resolve problems.
   iv. Ensuring that the final product meets customer specifications and requirements.
   v. Purchasing of equipment, tools and supplies.

g. The Lead Hands report to the Production Manager and are responsible for:

   i. Assigning jobs with personnel.
   ii. Employee on-the-job training.
   iii. Resolving production problems.

iv. Machine set-up.
v. Programming machines.
vi. Purchasing of equipment, tools and supplies.

5.5.2 Management Representative

The QC Manager has been appointed as the management representative. The assigned duties include:

- Overseeing the implementation and maintenance of the quality system in accordance with AS9100 Rev. B requirements.
- Reporting on the performance of the quality management system.
- Reporting on the need for improvement of the quality management system.
- Encouraging and assisting in extending the understanding of customer requirements to the degree necessary throughout the organization.
- Having the organizational freedom to resolve matters pertaining to quality.

5.5.3 Internal Communication

The QC Manager shares data, indicating the performance of the quality management system, throughout the company by issuing memos and status reports of the Quality Management System, and through meetings, e-mails and postings on the bulletin board.

5.6 Management Review

5.6.1 General

In order to assure its continuing suitability, adequacy and effectiveness, Management will conduct reviews of the quality management system. The frequency of the Management reviews shall be on an annual basis at minimum. An expected outcome of that review is the determination of the need for any changes or to reveal opportunities for improvement to the quality management system, including adjustments to the quality policy and quality objectives. Management review minutes are maintained in accordance with Quality Records QAP 4.2.4QP-4241.DOC.

5.6.2 Review Input

Performance and opportunities for improvement are determined by reviewing the following:

- Audit results (internal and external).
- Quality policy and objectives.
- Customer feedback.
- Process performance and conformity.
- Preventive and corrective action status.
- Follow-up actions from previous management reviews.
- Quality management system related changes.
- Recommendations for improvements.
- Reviewing training requirements and effectiveness.
- Supplier evaluation.
- Reviewing work environment and infrastructure issues.

5.6.3 Review Output

Actions associated with the following are included in the output from management review:

- Improvement of effectiveness of the quality management system and its processes.

- Improvements of products and services associated with customer requirements.
- Maintenance of appropriate resources.

Management review records are maintained as per Quality Records QAP 4.2.4 QP-4241.DOC.

6. RESOURCE MANAGEMENT

6.1 Provision of Resources

Resources for the following purposes are provided on time:

- To implement and maintain the quality management system and to continually improve its effectiveness.
- To ensure customer satisfaction through the consistent achievement of customer requirements.

6.2 Human Resources

6.2.1 General

Anyone in the company, having an assignment that can affect product or service quality, must be competent through education, skills, training and/or experience as necessary. Requirements for education, skills, training and/or experience can be found in the job descriptions or personnel files maintained by Administration.

6.2.2 Competence, Awareness And Training

Management is responsible for the determination of the competencies needed as new quality management system processes evolve and existing ones change. The Manager/Lead Hand documents the competence of personnel in the Training Assessment spreadsheet on an annual basis. When training is required to aid achievement of the required competence, training will be scheduled and coordinated by the Lead Hand and/or Manager. Training performed will be recorded in the Training Records spreadsheet.

One or more of the following will evaluate effectiveness of the training and other actions taken:

- Testing or certification.
- Certificates of completion for internal or external training.
- Reviewing effectiveness at the performance appraisal.
- Reviewing effectiveness of internal training at a management review meeting.

Appropriate training shall be scheduled with all personnel to ensure that they are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives.

Administration is responsible for maintaining records of education, training, skills and experience QP-4241.DOC.

6.3 Infrastructure

Management shall determine the infrastructure needs for each new service or significant change to an existing service. Consideration is given to the following:

- Buildings, workspace and utilities.
- Process equipment – hardware and software.
- Supporting services such as transportation or communication.

Changes to the infrastructure are planned during meetings. When all the needs have been identified, it is the responsibility of the Executive Management to approve those necessary for the achievement of service requirements.

(Company) conducts a preventive maintenance program which includes the procedures for maintaining equipment along with a schedule for their maintenance. The schedule includes a listing of equipment along with the frequency intervals for their maintenance. Certain equipment is maintained by specialist organizations and is noted as such on the schedule (see Process Control QAP 7.5.1).

6.4 Work Environment

The company considers and addresses many different aspects of the work environment. Management is responsible for the following:

- Facilities.
- Health and Safety.
- Information Technology.

7. PRODUCT REALIZATION

7.1 Planning Of Product Realization

Procedures have been established to plan and develop the processes needed for product realization.

The procedures shall be in a format suitable for operations and shall include:

a. The quality objectives and requirements for the product and service.
b. The need to establish processes and documents and provide resources specific to the product/ service.
c. Required verification, validation, monitoring, and inspection activities specific to the product/service and the criteria for acceptance.
d. Records needed to provide evidence that the realization processes and resulting product/service fulfill requirements (Quality Records QAP 4.2.4).
e. The identification of resources to support operation and maintenance of the product.

7.2 Customer-Related Processes

7.2.1 Determination Of Requirements Related To The Product

In an effort to thoroughly identify all customer requirements, the following are considered by Executive Management as they interface with the customer:

- Customer drawings, specifications and performance requirements.
- Customer stated availability and delivery requirements.
- Requirements not stated by the customer but necessary for specified use or known and intended use.
- Statutory and regulatory requirements related to the product.
- Any additional requirements.

7.2.2 Review Of Requirements Related To The Product

Executive Management or the Project Manager or delegate will review all identified customer requirements and other identified product requirements for new business acceptance as per Contract Review QAP 7.2. This procedure addresses:

- Definition of product requirements.
- Requirements that change after the quote process has begun.
- Determination of the (Company) ability to meet the requirements.
- Risks have been evaluated (e.g. new technology, short delivery time).

Records of requirement reviews and follow-up actions are maintained (see Quality Records QAP 4.2.4).

Specification, contract or customer purchase order changes are reviewed by Executive Management and/or Project Manager. If the change is technical, an in-process job will be stopped, applicable personnel will be informed and the manufacturing process sheet shall be modified to incorporate the change. Refer to Contract Review QAP 7.2.

7.2.3 Customer Communication

Initial communication occurs between (Company) and its customers usually by Management making initial contact either in person or by phone. Following the initial contact, the customer will generally either place an order or request pricing and/or information by calling, faxing, visiting, or e-mailing. Orders are reviewed and entered by Administration and reviewed for technical information by the Project Manager, Executive Management or QC Manager.

The Production Manager, along with the Lead Hands, handles scheduling and delivery issues. The QC Manager logs and responds to customer complaints as per Nonconforming Product QAP 8.3.

7.3 Design And Development

Not applicable to (Company).

7.4 Purchasing

7.4.1 Purchasing Process

(Company) ensures that the purchased product or services conform to specified customer requirements and regulations (if applicable). (Company) is responsible for the quality of all products purchased from suppliers, including customer-designated sources (refer to Purchasing QAP 7.4).

(Company) assesses major suppliers by rating the suppliers using the Supplier Evaluation form based on quality, delivery, price and service criteria at the management review meeting. The records of these reviews shall be used as a basis for establishing the level of controls to be implemented.

All records involving the assessment of suppliers are considered quality records.

(Company) maintains a list of approved suppliers that includes the name of the supplier and scope of the approval.

When suppliers do not meet requirements, the QC Manager shall issue a Corrective Preventive Action Request (CPAR) to the supplier asking for the root cause and action to be taken to resolve the problem.

(Company) only subcontracts special processes to customer-approved special process sources. These special process sources cannot subcontract the process. The special process supplier shall provide a certificate of conformity for all work performed.

The QC Manager has the authority and responsibility to approve and disapprove the use of suppliers

7.4.2 Purchasing Data

(Company) issues Purchase Orders for purchasing activities. Based on the cost, authorized personnel with purchasing authority will request PO approval from Management personnel.

The Purchase Orders shall contain data clearly describing the product ordered including, where appropriate:

a. Requirements for approval of product, procedures, processes and equipment.

b. Quality management system requirements.

c. Name or other positive identification and applicable issues of specifications, drawings, process requirements, inspection instructions and other relevant technical data.

d. Requirements for design, test, examination, inspection and related instructions for acceptance by (Company).

e. Requirements for test specimens for design approval, inspection investigation or auditing.

f. Requirements relative to supplier notification to (Company) of nonconforming product and arrangements for (Company) approval of supplier nonconforming material.

g. Requirements for the supplier to notify (Company) of changes in product and/or process definition and, where required, obtain organization approval.

h. Right of access by the (Company) customer and regulatory authorities to all facilities involved in the order and all applicable records.

i. Requirements to flow down to sub-tier suppliers the applicable requirements in the purchasing documents including key characteristics where required.

7.4.3 Verification Of Purchased Product

Purchased product when received is verified as per the procedure for Incoming Inspection QAP 7.4.3.

When (Company) stipulates in any contract that purchased product is subject to source inspection by (Company) or its customer, the details for such an inspection and subsequent release of accepted material will be stated in the purchase agreement.

Purchased product shall not be used or processed until it has been verified as conforming to specified requirements.

The data in the test reports received for purchased products shall be verified to ensure they are acceptable as per applicable specifications. (Company) periodically validates test reports for raw materials as per Incoming Inspection QAP 7.4.3.

If (Company) delegates verification activities to the supplier, the requirements for delegation shall be defined and a register of delegations maintained.

When (Company) stipulates in any contract that purchased product or service is subject to source inspection by (Company) or (Company) customer, the details for such an inspection and subsequent release of accepted material will be stated in the purchase agreement.

Where specified in the contract(Company) customer or representative shall be afforded the right to verify at the supplier's premises and (Company)'s premises that subcontracted product conform to specified requirements.

Verification by the customer shall not be used by (Company) as evidence of effective control of quality by the supplier and shall not absolve (Company) of the responsibility to provide acceptable product.

7.5 Product or Service Provision

7.5.1 Control Of Product/Service Provision

The control of (Company) production and service provision activities is assured by:

- The easy access of drawings and specifications for product and/or service.
- The use of suitable equipment.
- The availability of specified measuring and monitoring equipment.
- The implementation of monitoring and measurement activities, as planned, through the use Process Sheets.
- The implementation of release, delivery and post delivery activities.
- Accountability for all product during manufacture (part quantities, split orders, nonconforming product).
- Evidence that all manufacturing and inspection operations have been completed as planned, or as otherwise documented and authorized.
- Provision for the prevention, detection and removal of foreign objects.
- Monitoring and control of utilities and supplies to the extent they affect product quality.
- Criteria for workmanship, which shall be stipulated in the clearest practical manner either by written standards, notes or sketches in the process sheet documents or by representative samples.

The Production Manager along with Lead Hands shall consider as applicable:

- Establishing process controls and developing control plans where key characteristics have been identified.
- Identifying in-process verification points when adequate verification of conformance cannot be performed at a later stage of realization.
- Designing, manufacturing and using tooling so that variable measurements can be taken, particularly for key characteristics.
- Special processes.

7.5.1.1 Production Documentation

Production operations shall be carried out with approved data which includes drawings, parts lists, process sheets and other applicable documents including a list of specific or non-specific tools and NC machine programs required and any specific instructions associated with their use.

7.5.1.2 Control of Production Process Changes

The Production Manager, Lead Hands and Project Manager are authorized to approve changes to production processes by initialing and dating the changes. When required, the QC Manager shall identify and obtain acceptance of changes that require customer and/or regulatory authority approval. Any changes that affect processes, production equipment, tools and programs are documented as per Process Control QAP 7.5.1.

The Production Manager along with the Lead Hands shall assess to confirm that the results of changes have been achieved without adverse effects to product quality.

7.5.1.3 Control of Production Equipment, Tools and NC Machine Programs

Production equipment, tools and NC programs shall be validated prior to use by performing the first article inspection. Periodically, the inspector shall verify the parts to ensure that the parts, set-up and tooling conform to requirements. The set-up person checks the preservation and condition of production equipment or tooling in storage every time tooling is set-up on the machine.

7.5.1.4 Control of Work Transferred on a Temporary Basis Outside (Company) Facilities

When planning to transfer work on a temporary basis to a location outside of (Company) facilities, (Company) shall define the process by furnishing the process sheets to define the process to control and validate the quality of the work.

7.5.1.5 Control of Service Operations

Where servicing is a specified requirement, service operation processes shall provide for:

i. A method of collecting and analyzing in-service data.
ii. Actions to be taken where problems are identified after delivery including investigation, reporting activities and actions on service information consistent with contractual and/or regulatory requirements.
iii. The control and updating of technical documentation.
iv. The approval, control and use of repair schemes.
v. The controls required for off-site work.

7.5.2 Validation Of Processes For Production And Service Provision

Processes within (Company) whose outcomes are not verifiable by subsequent monitoring and measurement must be validated to assure that requirements will be met. At (Company), welding processes are considered special processes. This also applies to processes used for products that may experience premature failure and for service that may require premature renewal. The validation of these processes includes:

- Process approval which may include:
  - Qualification and approval prior to use (First article inspection).
- Measurement of product characteristics.
  - Measurement and control of significant operations and process parameters in accordance with specifications and changes.
- Equipment approval through first piece approval, calibration status or preventive maintenance status.
- Operator training/operator certification.
- Use of specific methods and procedures.

Records of the above activities are maintained as per Quality Records QAP 4.2.4. Process revalidation is achieved in accordance with each process instruction.

7.5.3 Identification And Traceability

In order to prevent misuse or misapplication, and to maintain identity of purchased material, work-in-process, or completed product, (Company) utilizes Product Identification & Traceability QAP 7.5.3.

(Company) shall maintain the identification of the configuration of the product in order to identify any differences between the actual configuration and the agreed configuration.

The controls in place for acceptance authority media such as stamps are as per Product Identification & Traceability QAP 7.5.3.

Monitoring and measurement status of product at (Company) is an integral part of the material control task and are as per Product Identification & Traceability QAP 7.5.3.

Product Traceability is maintained through the use of procedure when required by the customer or a governing regulatory agency, or when (Company) determines that the practice would be prudent for the product being manufactured. The controls are as follows:

a. Identification to be maintained throughout the product life.
b. All the products manufactured from the same batch of raw material or from the same manufactured batch to be traced, as well as the destination (delivery, scrap) of all products of the same batch.

c. For an assembly, the identity of its components and those of the next higher assembly to be traced.
d. For a given product, a sequential record of its production to be retrieved.

7.5.4 Customer Property

Control of customer property (Customer Property QAP 7.5.4) can include tooling or special material. Customer property is:

- Controlled by knowing its location, inspection status and condition at all times using the Customer Supplied Tooling List.
- Verified for identity, quantity, condition and completeness.
- Returned to the client when completed and with drawing provided, if required.

The QC Manager shall inform the client if customer supplied material is lost, damaged, or is unserviceable.

Customer provided intellectual property is treated as documents of external origin and distributed on a need-to-know basis.

Customer property is treated the same as purchased material. More specifically, it is:

- Identified per Section 7.5.3.
- Verified as per inspection procedures.
- Protected per Section 7.5.5.

Lost, damaged, or non-conforming customer supplied material is subject to Nonconforming Product QAP 8.3.

Customer provided intellectual property including customer furnished data is treated as documents of external origin and distributed on a need-to-know basis.

7.5.5 Preservation Of Product

(Company) procedure for handling, packaging and storage (Preservation QAP 7.5.5) is as follows:

a. General handling requirements. Care is taken to ensure that parts and material are handled to avoid damage.

b. General packaging requirements are used to minimize the possibility of damage during shipment. Specific packaging requirements are indicated on the customer internet website or specification.

c. General storage requirements. (Company) controls designated storage areas as per Preservation QAP 7.5.5.

When contractually agreed upon, (Company) takes on the responsibility for product delivery without degradation of product quality. (Company) selects reputable carriers for providing delivery services.

7.6 Control Of Monitoring And Measuring Devices

Inspection and production personnel through their technical training and experience select the monitoring and measurement equipment required. Inclusion of a monitoring and measurement device requires that there be sufficient confidence that the error of the measurement system (device, documentation and operator) will not alter the measurement to be made. A calibration list is used to monitor the due dates of instruments (as per Calibration QAP 7.6).
To assure that measurement capability remains consistent, **(Company)** requires that measuring and monitoring devices:

- Be calibrated prior to use or periodically to national (NRC or NIST) traceable standards.
- Utilize safeguards for inappropriate adjustment.
- Be handled, maintained and stored properly.
- Have records of calibration.

In the event that calibration reveals that measurement capability has been lost, the incident shall be recorded in the calibration software system. A record of the action taken will be made and maintained as per Quality Records QAP 4.2.4.

8. MEASUREMENT, ANALYSIS AND IMPROVEMENT

8.1 General

Management plans and implements the monitoring, measurement, analysis and improvement processes as part of the management review process to demonstrate the conformity of the services provided, to ensure conformity of the quality management system and to continually improve the effectiveness of the quality management system. The need for statistical techniques is considered as plans are being made.

8.2 Monitoring And Measuring

8.2.1 Customer Satisfaction

Customer satisfaction information is obtained from several sources. The sources are:

a. Customer surveys.
b. Correspondence with customers, records are kept as letters, e-mails or faxes.
c. Customer complaints or returns.

The QC Manager presents a summary of customer feedback and issues during the management review meeting. Actions or areas for improvement are addressed using corrective or preventive actions.

8.2.2 Internal Audit

Internal audits of the quality management system are conducted as per Internal Quality Audits QAP 8.2.2. Frequency of audits of specific areas and/or specific requirements will vary with the need. That variation will be reflected in the required audit plans along with the scope, the methods and the assigned auditors. The audits seek conformance with the requirements of AS9100 Rev. B.
The criteria for auditor independence and clarification of auditor responsibilities are found in Internal Quality Audits QAP 8.2.2. The results are recorded (see Quality Records QAP 4.2.4) to enable management and others to take timely corrective action and to allow for proper verification of effectiveness in accordance with the Internal Quality Audits QAP 8.2.2.

8.2.3 Monitoring And Measurement Of Processes

Quality management system processes are monitored and measured as part of the internal audit process. When departures from planned results occur, the process for Corrective and Preventive Action QAP 8.5.2 enables correction and corrective action where appropriate.

In the event of a process nonconformity (Company**)** shall:

a. Take appropriate action to correct the nonconforming process.
b. Evaluate whether the process nonconformity has resulted in product nonconformity.
c. Identify and control the nonconforming product as per Section 8.3.

8.2.4 Monitoring And Measurement Of Product/Service

In order to assure conformity to customer requirements, process sheets and inspection reports contain the monitoring and measurement processes to be applied to the characteristics of each product/service at the appropriate levels of realization (as per Inspection and Test QAP 8.2.4).

Evidence of compliance with the requirement(s) must be recorded as well as the authority allowing further progression or final release.

Product release must be preceded by successful completion of all required activities unless approved by the customer (as per Nonconforming Product QAP 8.3).

Where key characteristics have been identified, they shall be monitored and controlled.

(Company) sampling inspection is performed as per the requirements of ASQ, C=0 (a known valid industry standard sampling plan), unless otherwise requested by the customer. The plan precludes the acceptance of lots whose samples have known nonconformities. When required, the plan shall be submitted for customer approval.

Product shall not be used until it has been inspected or otherwise verified as conforming to specified requirements.

Evidence of compliance with the requirement(s) must be recorded as well as the authority allowing further progression or final release.

8.2.4.1 Inspection Documentation

Measurement requirements for product acceptance shall be documented on inspection reports or on the process sheet. The documentation shall include:

a. Criteria for acceptance and/or rejection.
b. Where in the sequence measurement and testing operations are performed.
c. A record of measurement results.
d. Type of measurement instruments required and any specific instructions associated with their use.

Test records shall show actual test results data and any specific instructions associated with their use.

Where required to demonstrate product qualification, the organization shall ensure that the product meets the defined requirements.

8.2.4.2 First Article Inspection

First article inspection is performed on the first production run of a new part or following any subsequent change that invalidates the previous first article inspection result.

8.3 Control of Nonconforming Product

Nonconforming product is identified as per Nonconforming Product QAP 8.3. This procedure covers:

- Scrapping detected nonconformities.
- Repairing or reworking nonconformities.
- Accepting nonconformities (with appropriate approvals).
- Responsibility for review and for disposition of nonconforming product and the process for approving personnel making these decision.

Records of nonconforming material are maintained as indicated in Quality Records QAP 4.2.4.

Dispositions of use-as-is or repair shall not be used unless specifically authorized by the customer if the product is produced to customer design or results in a departure from requirements.

Scrap product shall be permanently marked to ensure that it is physically rendered unusable.

Re-inspection is required on all reworked or repaired material. Rework material must meet original requirements. Repaired material must meet intended function and other requirements in accordance with customer needs.

Discovery of nonconforming material after delivery is immediately followed by the actions necessary to minimize its impact and preserve customer satisfaction to the highest level possible under the circumstances.

In addition to any contract or regulatory authority reporting requirements, the QC Manager shall report in a timely manner of any delivered nonconforming product that may affect reliability or safety. Notification shall include a clear description of the nonconformity which includes as necessary parts affected, customer and/or (Company) part numbers, quantity, and date(s) delivered.

8.4 Analysis Of Data

Quality Management System related data is recorded as indicated in Quality Records QAP 4.2.4, analyzed with the objectives below in mind and used to determine the suitability, effectiveness and opportunities for improvement of the quality management system. The data analysis objectives for the company are:

- To assess customer satisfaction levels.
- To determine success rates in fulfilling customer requirements.
- To gather knowledge on trends associated with processes in order to initiate appropriate preventive action.

- To maintain awareness of the performance of suppliers and request them to take action to correct or improve the performance.

8.5 Improvement

8.5.1 Continual Improvement

At (Company), continual improvement is:

- A part of the quality policy.
- Reflected in the quality objectives.
- A part of the actions taken upon audit results.
- Driven by opportunities surfacing from data analysis.
- A result of preventive action.
- A required output from management review.

8.5.2 Corrective Action

In order to avoid the recurrence of problems, appropriate corrective actions are taken. The procedure for Corrective and Preventive Action QAP 8.5.2 provides a systematic approach to corrective action problems that includes:

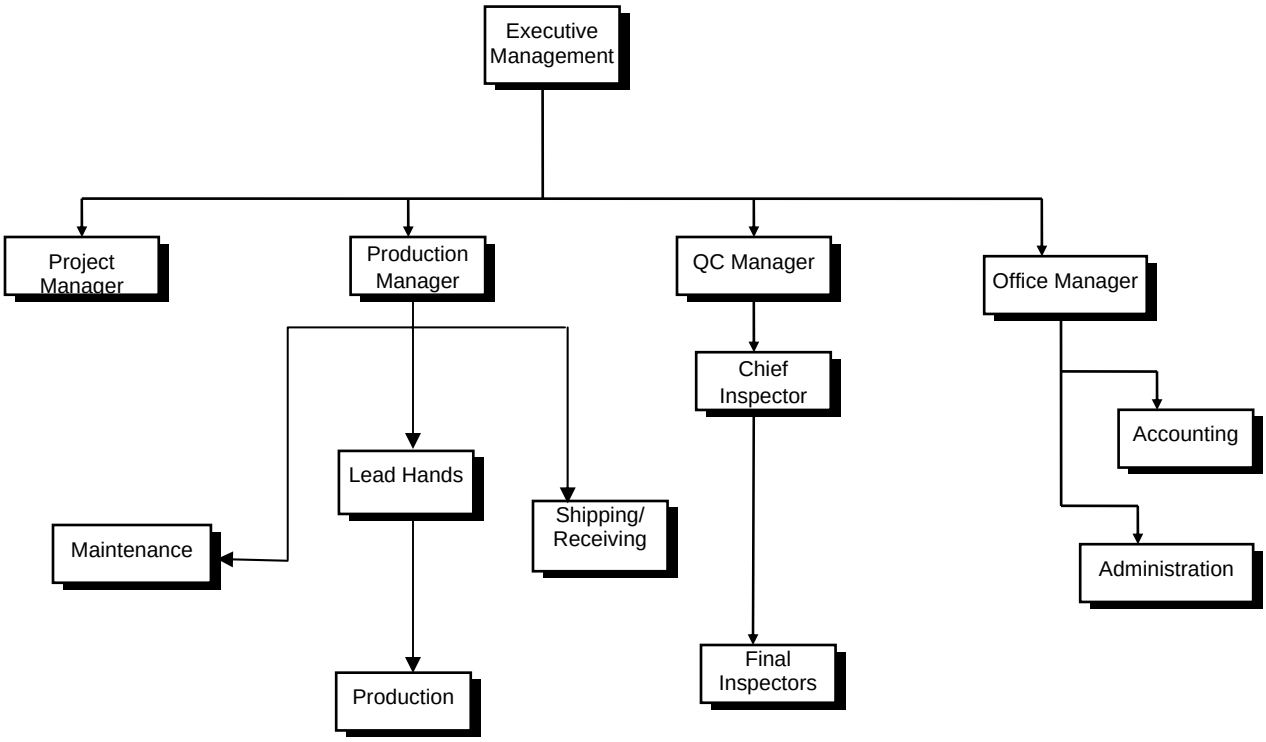
- Reviewing nonconformities including customer complaints.
- Determining the causes of nonconformities.
- Assessing the need for actions to avoid recurrence.
- Determining the corrective actions needed.
- Implementing corrective actions.
- Making records of the outcomes from actions taken (see Quality Records QAP 4.2.4).
- Verifying the effectiveness of corrective actions taken.
- Flow down of the corrective action requirement to a supplier, when it is determined that the supplier is responsible for the root cause.
- Specific actions when timely and/or effective corrective actions are not achieved.

8.5.3 Preventive Action

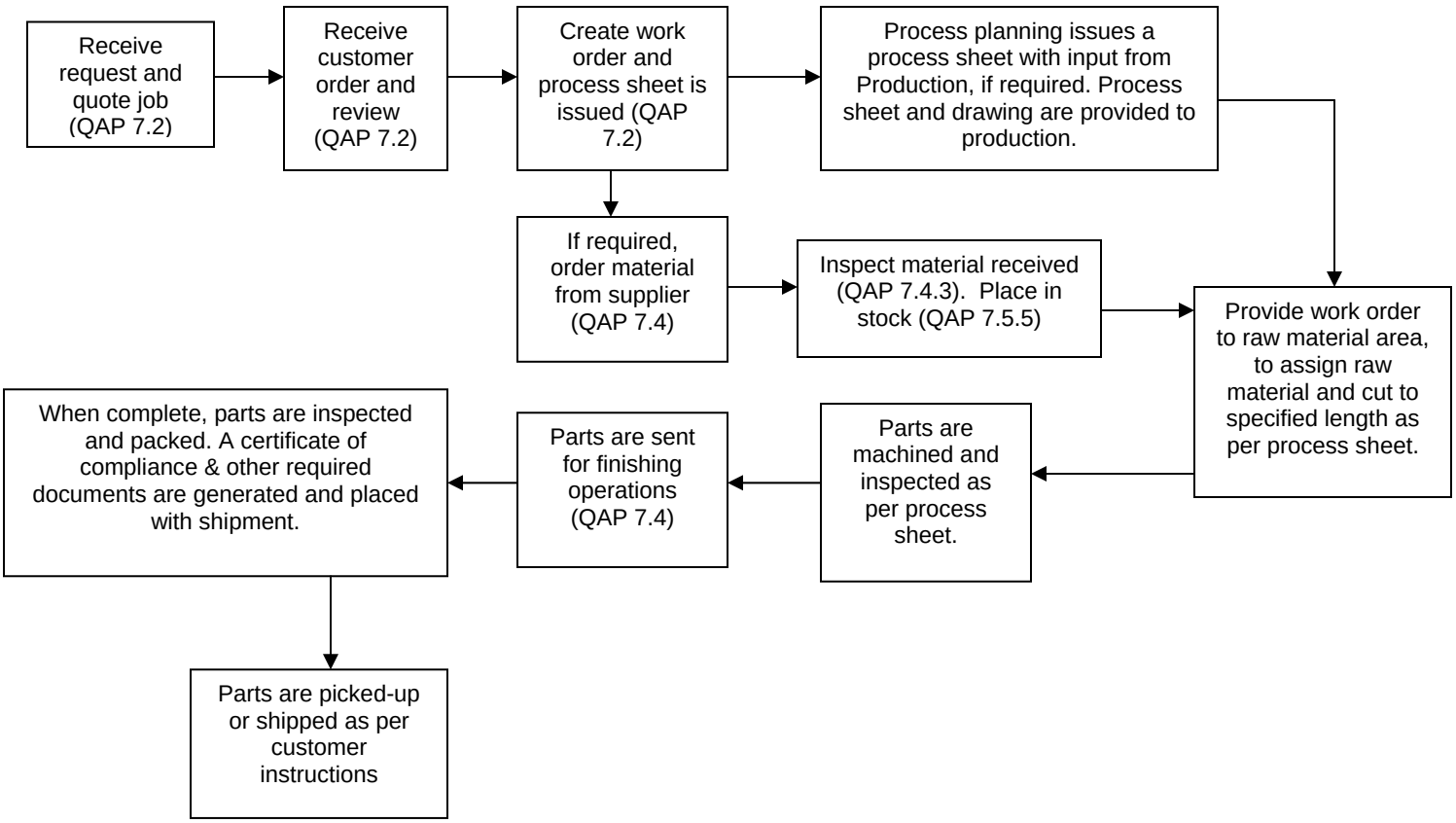
In order to avoid the occurrence of potential problems, appropriate preventive actions are taken. The procedure for Corrective and Preventive Action QAP 8.5.2 provides a systematic approach to preventive action problems that includes:

- The determination of potential nonconformities.
- The determination of causes of potential nonconformities.
- The determination of preventive actions needed.
- The implementation of determined preventive actions.
- Making records of the outcomes from actions taken (see Quality Records QAP 4.2.4).
- The review of preventive actions taken.

Appendix 1: Organizational Chart



Appendix 2 : General Process Flow - Process 1



Process 2 - Support Processes

Control of documents Section 4.2.3	Control of records Section 4.2.4
Training Section 6.2	Non-conformance Section 8.3
Calibration Section 7.6	Preventive Maintenance Section 6.3
Preservation Section 7.5.5	

Process 3- Continual Improvement (for system P1 and P2 (supporting processes))