



Quality Systems Manual

Rev T

**180 Trans Tech Drive
Athens, GA 30601**

Introduction

Accurus Aerospace Corporation, Athens, GA developed and implemented a Quality Management System in order to document the company's best business practices, better satisfy the requirements and expectations of its customers and improve the overall management of the company.

The Quality Management System of Accurus Aerospace Corporation, Athens, GA meets the requirements of the international standard SAE AS 9100. This system addresses the development, production, installation, and servicing of the company's products.

The manual is divided into sections that correlate to the Quality Management System sections of AS 9100. Each section begins with a policy statement expressing Accurus Aerospace corporation's obligation to implement the basic requirements of the referenced Quality Management System section. Each policy statement is followed by specific information pertaining to the procedures that describe the methods used to implement the necessary requirements.

This manual describes the Quality Management System, delineates authorities, inter relationships and responsibilities of the personnel responsible for performing within the system. The manual also provides procedures or references for all activities comprising the Quality Management System to ensure compliance to the necessary requirements of the standard.

This manual is used internally to guide the company's employees through the various requirements of the AS 9100 standard that must be met and maintained in order to ensure customer satisfaction, continual improvement and provide the necessary instructions that create an empowered work force.

This manual is used externally to introduce our Quality Management System to our customers and other external organizations or individuals. The manual is used to familiarize them with the controls that have been implemented and to assure them that the integrity of the Quality Management System is maintained and focused on customer satisfaction and continual improvement.

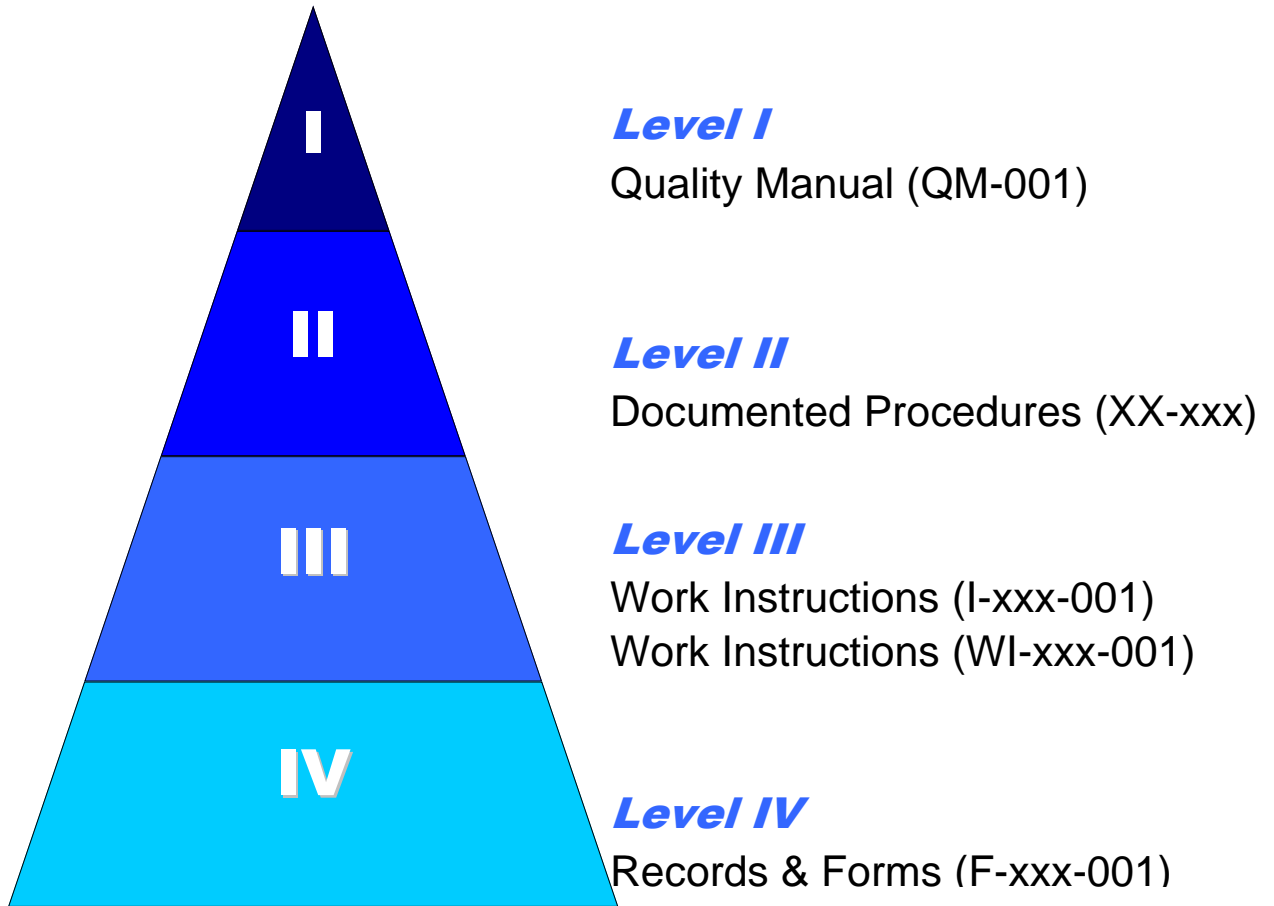
Background

ACCURUS AEROSPACE ATHENS, LLC

Quality Manual

Founded in 1963 as McCann Aerospace Machining, LLC, Accurus Aerospace Athens, LLC is a division of Accurus Aerospace based in Tulsa, Oklahoma. Accurus Aerospace Athens, LLC is a supplier of large, complex machined structural components and complex assemblies for the aerospace and defense industry. The Company provides Accurus Corporation with complementary capabilities, customer, platform and geographic diversification and incremental content on the highest value platforms.

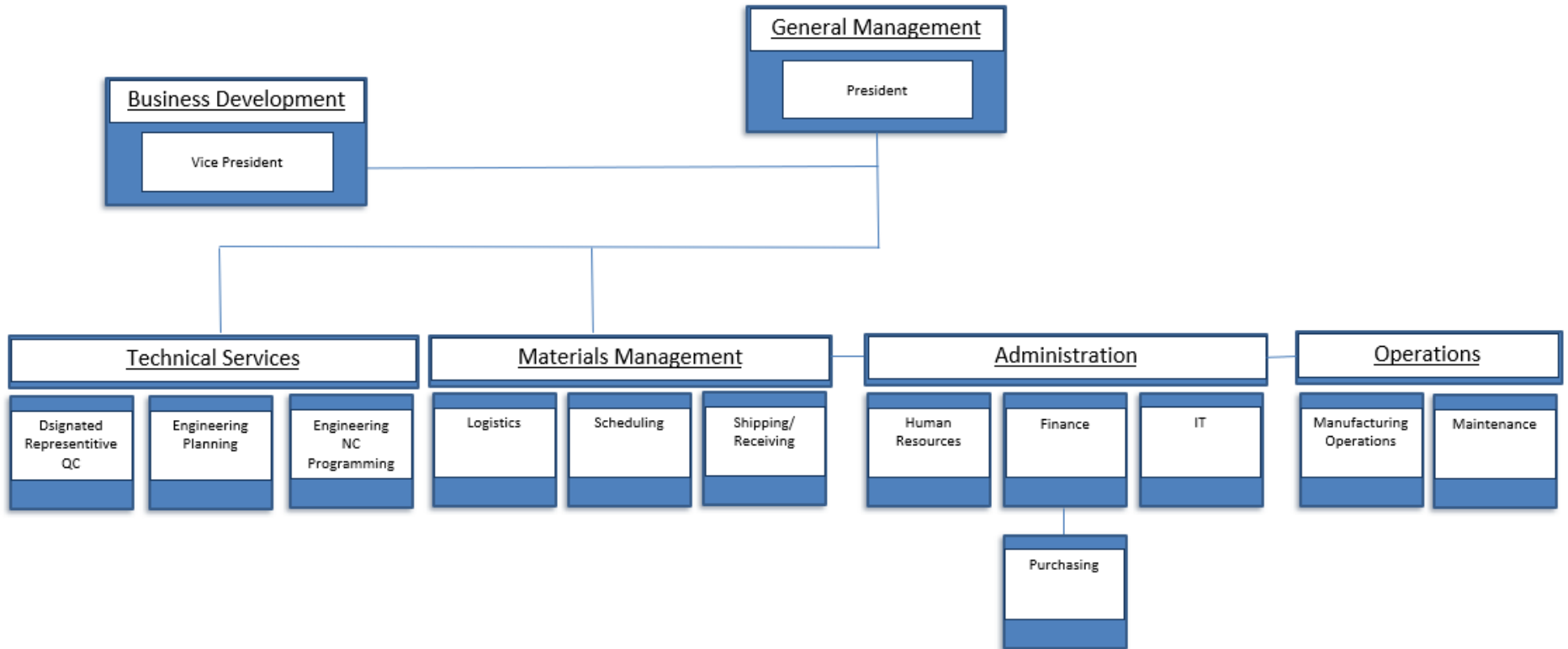
Documentation Scheme



List of Referenced Procedures

Procedure #	Name
AP-423	Document Control
AP-424	Control of Quality Records
AP-500	Management Responsibility
AP-622	Competence, Awareness and Training
AP-740	Purchasing
EP-630	Infrastructure
MP-710	Planning of Product Realization Processes
MP-750	Control of Provision & Service Provision
MP-753	Identification and Traceability
MP-754	Customer Property
MP-755	Preservation of Product
MP-824	Monitoring and Measurement of Product Realization
QP-760	Control of Monitoring and Measuring Equipment
QP-822	Internal Audits
QP-830	Control of Nonconforming Product and Processes
QP-840	Statistical Techniques
QP-852	Corrective Action
QP-853	Preventive Action
SP-720	Customer Related Processes

Accurus Aerospace Athens Organizational Chart



Scope

1.1 General

The quality manual outlines the policies, procedures and requirements of the Quality Management System. The system is structured to comply with the conditions set forth in the International Standard SAE AS 9100.

The policies stated in this manual apply to all operations and activities at Accurus Aerospace Corporation, Athens, GA. The scope of our quality system may be stated as follows:

Manufacturer of Precision Machined Components, Assemblies, Kitting, and Supply Chain Management for the Military and Commercial Aerospace Industry

It is the responsibility of all department managers to help define, implement and maintain the procedures required by this manual and to ensure all processes conform to these requirements. It is the responsibility of all employees to follow procedures that implement these policies and to strive for continual improvement in all activities and processes of Accurus Aerospace Corporation, Athens, GA.

1.2 Application

Accurus Aerospace Corporation, Athens, GA has determined that the following requirements are not applicable to the operations at this site and are documented as exclusions:

- **8.3 Design and Development**

Accurus Aerospace Corporation, Athens, GA is in the business of manufacturing product to strict customer requirements and specifications. Accurus Aerospace Corporation, Athens, GA customers retain and maintain the sole responsibility for the product design and the product development. Therefore, following the guidelines of clause 4.3, paragraph 2 of SAE AS 9100 Revision D, Accurus Aerospace Corporation, Athens, GA has elected to exclude clause 8.3, Design and Development, from its quality management System.

General Formatting Note: Many items found in Element 8 of AS9100 Revision D are established as core parts of the planning of work at Accurus Aerospace Athens, LLC. Because of this, many of these sub-elements are found in section 6 of this manual. Our view is that if a solid foundational base is established in the planning phase of work, the operational output, outlined in the requirements of Element 8, has a greater likelihood of success.

Definitions

3.0 Quality Management System Definitions

This section is for definitions unique to Accurus Aerospace Corporation, Athens, GA.

- Customer owned property - Any type of instrumentation, accessories, manuals, or shipping containers that belong to a customer.
- Customer supplied product - Any type of service or material supplied to be utilized in the manufacture, modification or repair of customer-owned property.
- Product – The end item result of meeting all contract terms and conditions. (ex: manufactured goods, merchandise, services etc.)
- Quality Records – Documentation of those activities wherein records of said activities must be maintained will be specified in the procedure or work instruction level documents, as applicable
- Key Characteristics- The features of a material, process, or part whose variation has a significant influence on product fit, performance, service life, or manufacturability.
- Risk - An undesirable situation or circumstance that has both a likelihood of occurring and a potentially negative consequence.
- Special requirements - 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. Factors used in the determination of special requirements include product or process complexity, past experience and product or process maturity.
- Critical items - Those items (e.g., functions, parts, software, characteristics, processes) having significant effect on the product realization and use of the product; including safety, performance, form, fit, function, producibility, service life, etc.; that require specific actions to ensure they are adequately managed.
- Top Management - Consists of the President, department managers and the management representative.
- Company Leaders - Defined as any level of management, supervisor, group leader, or lead person that has the responsibility of interaction with indirect or direct reports.

Section 4

Context of the Organization

4.1 General requirements

Accurus Aerospace Corporation, Athens, GA has established, documented and implemented a Quality Management System (QMS) in accordance with the requirements of AS 9100 and statutory and regulatory requirements. The system is maintained and continually improved through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive action and management review.

Accurus Aerospace Athens, LLC has a responsibility to our interested parties: Employees, Shareholders, Customers, Vendors, Regulatory Authorities, and End Users.

To design and implement the QMS Accurus Aerospace Corporation, Athens, GA has:

- Determined the external and internal issues that are relevant to our purposes and to our strategic direction, as outlined in the supporting documents of our QMS.
- Determined the processes needed for the QMS and their application throughout the organization and documented them on the Process Flow Diagram at the end of this section of the Quality Manual
- Determined the sequence and interaction of these processes, and illustrated them on the Process Flow Diagram
- Determined criteria and methods needed to ensure that the operation and control of the processes are effective and document them in quality plans and work instructions
- Ensured the continuing availability of resources and information necessary to achieve planned results and continual improvement of these processes
- Established systems to monitor, measure and analyze these processes, and
- Established processes to identify and implement actions necessary to achieve planned results and continual improvement of these processes

Where Accurus Aerospace, Athens, GA chooses to outsource any processes that affect product conformity, Accurus Aerospace will ensure control over processes, through FAI and receiving inspection of incoming goods.

4.2 Documentation Requirements

4.2.1 General

The QMS documentation includes:

- A documented Quality Policy and quality objectives
- This Quality Manual
- Documented Procedures

- Documents identified as needed for the effective planning, operation and control of our processes, and
- Quality Records
- Records required by statutory and regulatory authorities.

Accurus Aerospace Corporation, Athens, GA ensures that personnel have access to quality management system documentation and are aware of relevant procedures. We also provide customer or statutory and regulatory authorities access to quality management system documentation.

4.2.2 Quality manual

This Quality Manual has been prepared to describe Accurus Aerospace Corporation's QMS. The scope and permissible exclusions of the QMS are described in section one of this manual. Each section of the manual references documented QMS procedures relating to the requirements outlined in that section. The Process Flow Diagram at the end of section 4 provides a description of the interaction between the processes of the QMS system.

4.2.3 Control of documents

All of the QMS documents are controlled according to the Document Control Procedure (AP-423). This procedure defines the process for:

- Approving documents for adequacy prior to issue
- Reviewing and updating as necessary and re-approving documents
- Ensuring that changes and current revision status of documents are identified
- Ensuring that relevant versions of applicable documents are available at points of use
- Ensuring that documents remain legible and readily identifiable
- Ensuring that documents of external origin are identified and their distribution controlled
- Preventing the unintended use of obsolete documents and to apply suitable identification to them if they are retained for any purpose and
- Obtaining customer / regulatory agency approvals when required by contract or statutory and regulatory requirements

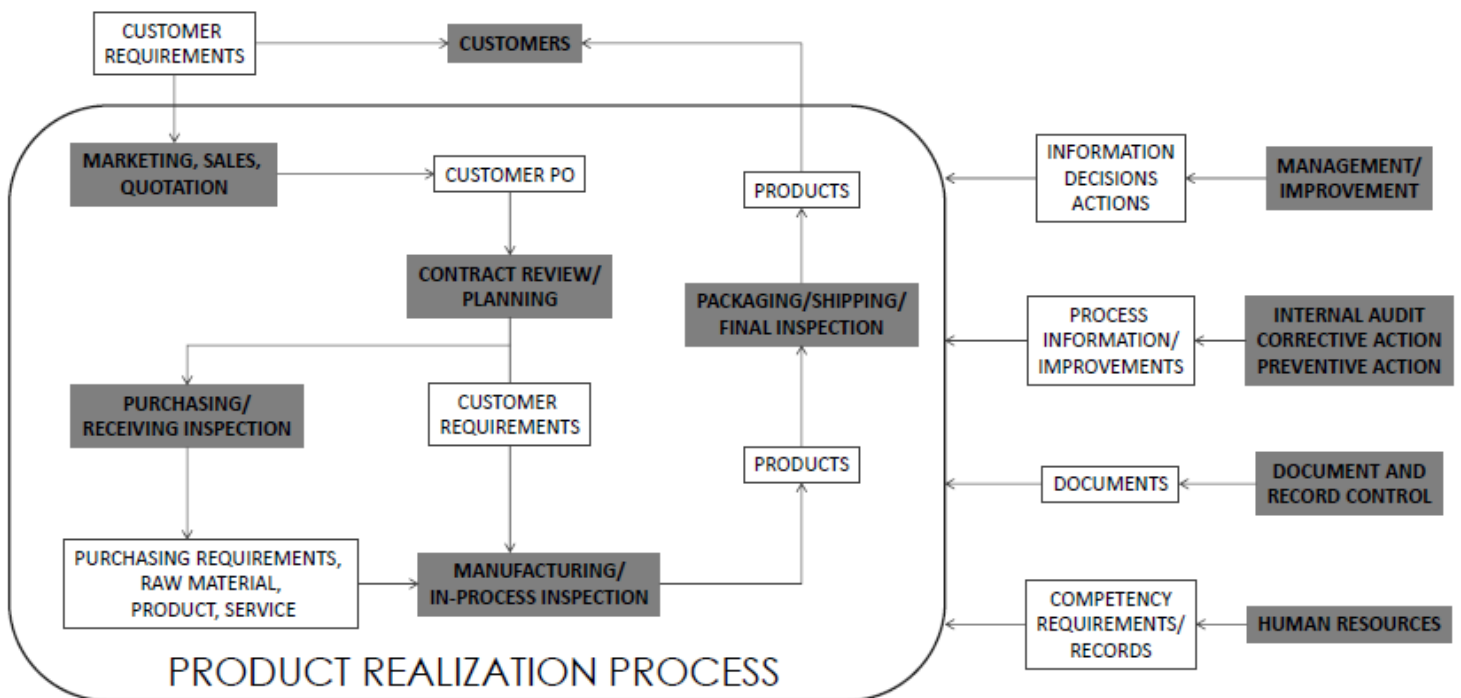
4.2.4 Control of quality records

Quality records are maintained to provide evidence of conformity to requirements and of the effective operation of the QMS. The records, including those created by or maintained by suppliers, are maintained according to the Control of Quality Records Procedure (AP-424). This procedure requires that quality records remain legible, readily identifiable and retrievable. The procedure defines the controls needed for identification, storage, protection, retrieval, retention time and disposition of quality records.

Related Procedures

Document Control	AP-423
Control of Quality Records	AP-424

ACCURUS AEROSPACE ATHENS INTERACTION OF PROCESSES



Section 5

Leadership

5.1 Management commitment

Top management has been actively involved in implementing the quality management system (QMS). It has provided the vision and strategic direction for the growth of the QMS, and established quality objectives and the quality policy. To continue to provide leadership and show commitment to the improvement of the QMS, management will do the following.

- Communicate the importance of meeting customer, statutory, and regulatory requirements.
- Establish quality objectives
- Establish the quality policy.
- Conduct yearly management reviews.
- Ensure the availability of resources.

5.2 Customer focus

Our company strives to identify current and future customer needs, to meet customer requirements and exceed customer expectations.

Customer requirements are determined, converted into internal requirements, and communicated to the appropriate people in our organization (SP-720). Product conformity and on time delivery performance are measured. Management ensures that action is taken if planned results are not achieved.

5.3 Quality policy

“The quality policy of Accurus Aerospace Corporation, Athens, GA is 100% Customer Satisfaction. This is achieved by providing our customers with a product that meets or exceeds all expectations, on time and at a competitive price, while continually improving our systems, processes and products”.

Top management ensures that the quality policy is communicated to all employees. It is included in new employee training and training on the QMS. It is posted in prominent places throughout the facility to maintain high standards within our organization.

Management reviews the quality policy at each management review meeting to determine the policy’s continuing suitability for our organization.

5.4 Planning

5.4.1 Quality objectives

Quality objectives are established to support our organization’s efforts in achieving our quality policy and reviewed annually for suitability. Objectives have been established for the following:

1. Product conformance: Measured by our internal quality metrics and the quality metrics our customers have set up for the organization.

2. Quality System Compliance: Measured by the results of internal and external audits.
3. On Time Delivery: Measured by the delivery rating metrics our customers have setup for the organization.
4. Continual Improvement: Measured by metrics for individual continuous improvement projects.

Quality objectives are measurable, and reviewed against performance goals at each management review meeting.

5.4.2 Quality management system planning

The quality system has been planned and implemented to meet our quality objectives and the requirements of 4.1 of the AS 9100 standard. Quality planning takes place as changes that affect the quality system are planned and implemented.

5.5 Responsibility, authority and communication

5.5.1 Responsibility and authority

An organizational chart has been established to show the interrelation of personnel in the organization. Job descriptions define the responsibilities and authorities of each of the positions on the organizational chart. Job descriptions and the organizational chart are reviewed and approved by top management for adequacy. These documents are available throughout the organization to help employees understand responsibilities and authorities. (Ref: Organizational Chart, Fig. 2)

5.5.2 Management representative

The Quality Systems Manager has been appointed by top management as the management representative. The management representative has the following responsibility and authority:

- Ensure that processes needed for the quality management system are established and implemented.
- Report to top management on the performance of the quality management system, and note needed improvements.
- Promote awareness of customer requirements throughout the organization.
- Act as a liaison with external parties such as customers or auditors on matters relating to the QMS and
- Resolve matters pertaining to quality issues
- Organizational freedom and unrestricted access to top management to resolve matters pertaining to quality.

5.5.3 Internal communication

Processes are established for communication within the organization. Methods of communicating the effectiveness of the QMS include department (daily) and management meetings (weekly), management review (annual), notice boards, E-mail, training and other routine business communication (quarterly all hands meeting).

5.6 Management review

5.6.1 General

Top management reviews the QMS yearly at management review meetings. This review assesses the continuing QMS suitability, adequacy and effectiveness, identifying opportunities for improvement and needed changes. Records are maintained for each management review meeting.

5.6.2 Review input

Assessment of the QMS is based on a review of information inputs to management review. These inputs include the following:

- Results of audits
- Customer feedback
- Process performance and product conformity
- Status of preventive and corrective actions
- Follow-up actions from previous management reviews
- Planned changes that could affect the quality management system
- Recommendations for improvement

5.6.3 Review output

During these review meetings, management will identify appropriate actions to be taken regarding the following issues:

- Improvement of the effectiveness of the quality management system and its processes
- Improvement of product related to customer requirements
- Resource needs

Responsibility for required actions is assigned to members of the management review team. Any decisions made during the meeting, assigned actions, and their due dates are recorded in the minutes of management review.

Related Procedures:

Customer Related Processes	SP-720
Management Responsibility	AP-500

Section 6

Planning of Product Realization

6.1 Planning of product realization

Quality planning is required before new products or processes are implemented. During this planning, management or assigned personnel identify (MP-710):

- The quality objectives and requirements for the product,
- Processes, documentation and resources required
- Verification, validation, monitoring, measuring, inspection and test requirements
- Configuration management
- Criteria for product acceptance
- Resources necessary to support use and maintenance of the product
- Resources to support operation and maintenance of the product.
- Risk analysis through engineering risk review meetings addressing new business, and PFMEA activities.

The output of this planning is in a form suitable for Accurus Aerospace Corporation's method of operations.

6.1.1 Project Management

Management assigns responsibility for project management and ensuring that product realization is planned and managed in a controlled manner, meeting requirements at acceptable risk, within resource and schedule constraints.

6.1.2 Risk Management

Risks are managed and includes;

- Assigning responsibility for risk management
- Defining risk criteria
- Identification, assessment and communication of risks
- Identification, implementation and management of actions to mitigate risks
- Acceptance of risks remaining after implementation of mitigating actions

6.1.3 Configuration Management

Configuration management is defined in MP-750, Control of Production and Service Provision and MP-710 Planning of Product Realization Process. The procedure defines the process for:

- Configuration management planning
- Configuration identification
- Change control
- Configuration status accounting
- Configuration audit

6.1.4 Control of Work Transfers

Temporary or permanent transfer of work is planned to control and verify the conformity of the work to requirements. Planning takes place according to the Planning of Realization Processes procedure (MP-710).

6.2 Customer-related processes

6.2.1 Determination of requirements related to the product

Accurus Aerospace Corporation, Athens, GA determines customer requirements before acceptance of an order. Customer requirements include those:

- Requested by the customer
- Required for delivery and post-delivery activities
- Not stated by the customer but necessary for specified use or known and intended use
- Statutory and regulatory requirements related to the product
- Additional requirements determined by Accurus Aerospace Athens, LLC

Customer requirements are determined according to the Customer Related Processes Procedure. (SP-720)

6.2.2 Review of requirements related to the product

Accurus Aerospace Corporation, Athens, GA has a process in place for the review of requirements related to the product (SP-720). The review is conducted before the order is accepted. The process ensures that:

- Product requirements are defined
- Contract or order requirements differing from those previously expressed are resolved
- Accurus Aerospace Corporation, Athens, GA has the ability to meet the defined requirements
- Records are maintained showing the results of the review and any actions arising from the review
- Where a customer does not provide a documented statement of requirement, the customer requirements are confirmed before acceptance
- Contractual requirements are reviewed and special product requirements are determined
- When product requirements are changed, Accurus Aerospace Corporation, Athens, GA communicates changes to relevant personnel and amends relevant documents
- Risks (e.g., new technology, short delivery time scale) have been evaluated (I-712-001).

6.2.3 Customer communication

Accurus Aerospace Corporation, Athens, GA has implemented an effective procedure (SP-720) for communicating with customers in relation to:

- Product Information
- Enquiries, contracts and order handling, including amendments
- Customer Feedback, including customer complaints

6.3 Design and Development

Excluded, see paragraph 1.2

6.4 Purchasing

6.4.1 Purchasing process

A documented procedure (AP-740) is followed to ensure that purchased product conforms to the specified purchase requirements. The procedure outlines the extent of control required for suppliers. Suppliers are evaluated and selected based on their ability to supply product in accordance with requirements as outlined in the procedure.

Responsibilities and criteria for selection, evaluation and re-evaluation, status and status change and risk analysis are documented in the procedure. Records of the evaluation and any necessary actions are maintained as quality records. Accurus Aerospace Corporation, Athens, GA is responsible for the quality of all products purchased from suppliers, including customer-designated sources.

- a) maintains a register of approved suppliers that include the scope of the approval,
- b) periodically reviews supplier's performance. Records of these reviews are used as a basis for establishing the level of controls to be implemented,
- c) defines the necessary actions to take when dealing with suppliers that do not meet requirements,
- d) ensures where required that both the organization and all suppliers use customer approved special process sources, and
- e) ensures that the function having responsibility for approving suppliers Quality System has the authority to disapprove the use of sources.
- f) determine and manage the risks when selecting and using suppliers

6.4.2 Purchasing information

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

- Requirements for approval of product, processes and equipment
- Requirements for qualification of personnel
- Quality management system requirements outlined in the Purchasing Procedure (AP-740)

The purchasing documents are reviewed to ensure the adequacy of requirements before orders are placed with the supplier.

6.4.3 Verification of purchased product

The Monitoring and Measuring of Product & Realization Processes procedure (MP-824) describes the process used to verify that purchased product meets specified purchase requirements. Purchased product is not used or processed until it has been verified as conforming to specified requirements unless it is released under positive recall procedure. If test reports are used to verify purchased product, the data must meet applicable specifications.

When verification activities are delegated to the supplier the requirements are defined, and a register of delegations is maintained.

If Accurus Aerospace Corporation, Athens, GA or the customer will perform verification at the supplier's premises, the verification arrangements and method of product release are documented in the purchasing information. Where specified in the contract, the customer or the customer's representative is given the right to verify at the suppliers premises and organization's premises that product conforms to specified requirements

6.5 Production and Service Provision

6.5.1 Control of production and service provision

Accurus Aerospace Corporation, Athens, GA plans and carries out production and service provision under controlled conditions according to documented procedure (MP-750). Controlled conditions include, as applicable:

- The availability of information that describes the characteristics of the product
- The availability of work instructions
- The use of suitable equipment
- The availability and use of monitoring and measuring equipment
- The implementation of monitoring and measurement
- The implementation of release, delivery and post-delivery activities
- accountability for all product during manufacture (e.g., parts quantities, split orders, nonconforming product), part accountability to ensure bad parts have been destroyed
- evidence that all production and inspection/verification 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 such as water, compressed air, electricity and chemical products to the extent they affect product quality,

- criteria for workmanship, which shall be stipulated in the clearest practical manner (e.g., written standards, representative samples or illustrations).

Planning considers, as applicable:

- The establishment of process controls and development of control plans where key characteristics have been identified,
- The identification of in-process verification points when adequate verification of conformance cannot be performed at a later stage of realization,
- The design, manufacture, and use of tooling so that variable measurements can be taken, particularly for key characteristics, and
- Special processes (see 7.5.2).

6.5.1.1 Production Process Verification

Production processes are verified using a representative item from the first production run of a new part or assembly to verify that the process and tooling are capable of producing conforming parts. Verification is repeated when changes occur that could invalidate the original results.

6.5.1.2 Control of Production Process Changes:

Authorized people for approving changes to production processes are identified in the Procedure MP-750. Accurus Aerospace Corporation, Athens, GA controls and documents changes affecting processes, production equipment, tools and software programs according to this procedure.

The results of changes to production processes are assessed to confirm that the desired effect has been achieved without adverse effects to product quality.

6.5.1.3 Control of Production Equipment, Tools and Numerical Control (N.C.) Machine Programs

Production equipment, tools and programs are validated prior to use and maintained and inspected periodically according to documented procedures. Validation prior to production use includes verification of the first article produced to the design data/specification. Storage requirements, including periodic preservation/condition checks, have been established for production equipment or tooling in storage.

6.5.1.4 Post-Delivery Support

Accurus Aerospace does not perform Post Delivery Support except as follows:

- Actions to be taken, including investigation and reporting, when problems are detected after delivery.

6.5.2 Validation of processes for production and service provision

Accurus Aerospace Corporation, Athens, GA validates any processes for production and service provision where the resulting output cannot be verified by

subsequent monitoring or measurement. This includes any processes where deficiencies become apparent only after the product is in use or the service has been delivered. Validation demonstrates the ability of these processes to achieve planned results.

Accurus Aerospace Corporation, Athens, GA has documented the process for validation including:

- Defined criteria for review and approval of the processes
- Approval of equipment and qualification of personnel
- Use of specific methods and procedures,
- Requirements for records
- Revalidation

6.5.3 Identification and traceability

Accurus Aerospace Corporation, Athens, LLC identifies the product throughout product realization according to the Identification and Traceability procedure (MP-753).

- Accurus Aerospace Corporation, Athens, LLC maintains the identification of the configuration of the product in order to identify any differences between the actual configuration and the agreed configuration.
- Product is identified with respect to monitoring and measurement requirements.
- When acceptance authority media such as stamps, electronic signatures or passwords are used Accurus Aerospace Corporation, Athens, LLC establishes and documents controls for the media.
- According to the level of traceability required by contract, statutory and regulatory, or other established requirement, Accurus Aerospace Corporation, Athens, LLC system provides for:
 - Identification to be maintained throughout the product life;
 - All the products manufactured from the same batch of raw material or from the same manufacturing batch to be traced, as well as the destination (delivery, scrap) of all products of the same batch;
 - For an assembly, the identity of its components and those of the next higher assembly to be traced;
 - For a given product, a sequential record of its production (manufacture, assembly, inspection) to be retrieved.

Accurus Aerospace Corporation, Athens, GA controls and records the unique identification of the product where ever traceability is a specified requirement.

6.5.4 Customer property

Accurus Aerospace Corporation, Athens, GA exercises care with customer property while it is under the organization's control or being used. A procedure (MP-754) outlines the Identification, verification, protection and safeguarding of customer property provided for use. If any customer property is lost, damaged or otherwise found to be unsuitable for use, this is reported to the customer and records maintained.

6.5.5 Preservation of product

Accurus Aerospace Corporation, Athens, GA preserves the product during internal processing and delivery to the intended destination per procedure (MP-755). This preservation includes identification, handling, packaging, storage and protection. Preservation also applies to the constituent parts of a product.

Preservation of product also includes, where applicable in accordance with product specifications and/or applicable regulations, provisions for:

- Cleaning;
- Prevention, detection and removal of foreign objects;
- Special handling for sensitive products;
- Marking and labeling including safety warnings;
- Shelf life control and stock rotation;
- Special handling for hazardous materials.

6.6 Control of monitoring and measuring equipment

Accurus Aerospace Corporation, Athens, GA has determined the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of product to determined requirements. A documented procedure (QP-760) outlines the process used to ensure that monitoring and measurement to be carried out are carried out in a manner that is consistent with the monitoring and measurement requirements.

- Calibrated, verified or both at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards.
- Adjusted or re-adjusted as necessary
- Identified to enable the calibration status to be determined
- Safeguarded from adjustments that would invalidate the measurement result
- Protected from damage and deterioration during handling, maintenance and storage
- Be recalled according to a defined method when requiring calibration

In addition, Quality Control assesses and records the validity of the previous measuring results when the equipment is found not to conform to requirements.

Accurus Aerospace Corporation, Athens, GA takes appropriate action on the equipment and any product affected. Records of the results of calibration and verification are maintained

Accurus Aerospace Corporation, Athens, GA maintains a register of these monitoring and measuring equipment. The process used for their calibration is defined in procedures, work instructions and equipment manuals and includes details of equipment type, unique identification, location, frequency of checks, check method and acceptance criteria.

When used in the monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application is confirmed. This is undertaken prior to initial use and reconfirmed as necessary.

Accurus Aerospace Corporation, Athens, GA ensures that environmental conditions are suitable for the calibrations, inspections, measurements and tests being carried out.

Related Documents

Planning of Product Realization Processes MP-710

Customer Related Processes SP-720

Customer Property MP-754

Purchasing AP-740

Control of Production and Service Provision MP-750

Identification and Traceability MP-753

Preservation of Product MP-755

Control of Monitoring and Measuring Equipment QP-760

Section 7

Support

7.1 Provision of resources

Our company has implemented a Quality Management System that complies with the AS 9100 standard. This implementation was achieved with management commitment and with sufficient resources for the implementation. To effectively maintain and continually improve the system, management determines and provides necessary resources.

7.2 Human resources

7.2.1 General

To ensure competence of our personnel, job descriptions have been prepared identifying the qualifications required for each position that affects product quality. Qualifications include requirements for education, skills and experience. Appropriate qualifications, along with required training, provide the competence required for each position.

7.2.2 Competence, awareness and training

Qualifications are reviewed upon hire, when an employee changes positions or the requirements for a position change. Human resources maintain records of employee qualifications. If any differences between the employee's qualifications and the requirements for the job are found, training or other action is taken to provide the employee with the necessary competence for the job. The results are then evaluated to ensure that the competence has been achieved. Training and evaluation are conducted according to the Training procedure. (AP-622)

All employees are trained on the relevance and importance of their activities and how they contribute to the achievement of the quality objectives.

7.3 Infrastructure

Accurus Aerospace Corporation, Athens, GA determines, provides and maintains the infrastructure needed to achieve conformity to product requirements. Infrastructure includes, as applicable:

- a) buildings, workspace and associated utilities,
- b) process equipment, both hardware and software, and
- c) supporting services, such as transportation, communication or information systems.

7.4 Work Environment

Accurus Aerospace Corporation, Athens, GA determines and manages the work environment needed to achieve conformity to product requirements.

Factors that may affect the conformity of the product include temperature, humidity, lighting, cleanliness, protection from electrostatic discharges, etc.

7.5 Measurement Traceability

Measuring equipment is calibrated on a set schedule and verified prior to use to establish the validity of our measurements. The majority of measurement equipment is calibrated by a contract house, though procedures exist for the calibration of tooling in-house.

The QCBD database houses the calibration dates and manages the recall of equipment for recalibration based upon established schedules.

7.6 Organizational Knowledge

QCBD houses the documents necessary to supplement the planning and work instruction necessary to fulfill customer requirements.

Planning is presented in the form of the shop traveler, which accompanies each released lot of material from issue of raw stock to shipment of completed parts.

Work instructions are developed for each production job, as the first pieces are produced. The final released version has been reviewed by engineering.

Many work instructions are available in a digital format, viewed with a tablet.

7.7 Control of Documented information

All documents are kept in the QCBD database, which retains document change orders and revision history for each document. Change control requirements are maintained by the database rule configuration.

All printed documents are considered reference material, and must be validated as the current revision prior to use.

Related Documents

Competence, Awareness and Training	AP-622
Infrastructure	EP-630
Control of Monitoring and Measuring Equipment	QP-760
Identification and Traceability	MP-753

Section 8

Operation

8.1 General

Accurus Aerospace Corporation, Athens, LLC implements all operational output using the planning outlined in section 6 of this manual. Operational details monitored are:

- personal and product safety
- producibility and inspectability of our parts
- reliability, availability, and maintainability of our equipment
- selection and development of appropriate software
- FOD prevention
- Handling, including packaging and preservation of products
- Improvement through data analysis, and risk evaluation activities, such as PFMEA, and new product launch management.
- Counterfeit detection and control

Accurus Aerospace Athens, LLC excludes design and development of products and services, as found in section 8.3.

To maintain control of quality products, Accurus Aerospace Athens, LLC does not delegate any product inspection approval authority to any subtier, or contract entities. All product is inspected in house to validate conformance to customer requirements, unless the customer initiates a signed drop ship authorization.

These processes are identified in documented procedures and include determination of applicable methods, including statistical techniques, and the extent of their use.

8.2 Specification Management

8.2.1 Material Specification

Accurus Aerospace Athens, LLC maintains a subscription to a database that houses the current revision of the majority of required material specifications.

All purchase orders issued to suppliers require the supplier to reference the Accurus website for the current specification revision that is required for the processing of parts.

Specifications that are specific to customers are sent via push notifications to Industrial Engineers, and Quality Engineers, who review the revision changes, and determine if there is any impact to the planned processes.

8.2.1 Counterfeit Control and Detection

Accurus Aerospace Athens, LLC, has a dedicated counterfeit control and detection procedure. To reduce the likelihood of the introduction of counterfeit goods Accurus Athens:

- Purchases goods and materials from an Approved Supplier List
- Purchases goods and materials from vendors that are on our customers approved source lists.
- Issues purchase orders to approved vendors, which state the specification requirements of our customers.
- Audits incoming material certifications to verify that the certification meets the issued purchase order for the material received.
- Validates the certified chemical composition of raw materials meet the chemical composition requirements of the related specification.
- Maintains GIDEP membership, to receive alerts related to our purchased goods and materials. (Accurus Aerospace Athens, LLC, does not purchase or assemble any electronic components).
- Reviews vendor performance, and issues corrective action where applicable.
- Where applicable, Accurus Aerospace Athens, LLC, requires material conformance testing to accompany received materials.

• **Related Documents**

- | | |
|--|------------|
| • Receiving and Inspection of Raw Materials | I-010-R001 |
| • Counterfeit Control and Detection | I-010-R006 |
| • Terms and Conditions | Website |
| • Identification and Traceability | MP-753 |
| • Planning and Product Realization Processes | MP-710 |

Section 9

Performance Evaluation and Improvement

9.1 General

Accurus Aerospace Corporation, Athens, GA plans and implements the monitoring, measurement, analysis and improvement processes as needed

- To demonstrate conformity of the product,
- To ensure conformity of the quality management system, and
- To continually improve the effectiveness of the quality management system.

These processes are identified in documented procedures and include determination of applicable methods, including statistical techniques, and the extent of their use.

9.2 Monitoring and Measurement

9.2.1 Customer Satisfaction

As one of the measurements of the performance of the quality management system, Accurus Aerospace Corporation, Athens, GA monitors information relating to customer perception as to whether the organization has fulfilled customer requirements. The method for obtaining and using this information is identified in the Customer Related Processes (SP-720), and the Management Responsibility procedure (AP-500).

9.2.2 Internal Audit

Accurus Aerospace Corporation, Athens, GA conducts internal audits at planned intervals to determine whether the quality management system

- Conforms to the planned arrangements, to the requirements of this International Standard and to the quality management system requirements established by the organization
- Is effectively implemented and maintained.

An audit program has been designed and implemented and identifies an audit schedule based on the importance of the areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency, methods, responsibilities and requirements for planning and conducting audits, and for reporting and maintaining results, are defined and documented in the Internal Audit procedure (QP-822).

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

9.2.3 Monitoring and measurement of processes

Accurus Aerospace Corporation, Athens, GA applies suitable methods for monitoring and, where applicable, measurement of the quality management

system processes. These methods demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, correction and corrective action is taken, as appropriate, to ensure conformity of the product. In the event of process nonconformity, the organization follows the Control of Nonconforming Product and Process procedure (QP-830) and:

- Takes appropriate action to correct the nonconforming process,
- Evaluates whether the process nonconformity has resulted in product nonconformity,
- Determines the scope of the process nonconformity, and
- Identifies and controls the nonconforming product in accordance with clause 8.3.

The process for identifying and carrying out the required monitoring and measuring of processes is documented in the Monitoring, Measuring and Analysis of Product Realization Processes (MP-824) and Management Responsibility procedures (AP-500).

9.2.4 Monitoring and measurement of product

Accurus Aerospace Corporation, Athens, GA monitors and measures the characteristics of the product to verify that product requirements are fulfilled. This is carried out at appropriate stages of the product realization process identified in Monitoring, Measuring and Analysis of Product Realization Processes (MP-824). Evidence of conformity with the acceptance criteria is maintained.

Measurement requirements for product or service acceptance are documented. This documentation is part of the production documentation, and includes:

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

When key characteristics have been identified, they are monitored and controlled.

When the organization uses sampling inspection as a means of product acceptance, the plan is statistically valid and appropriate for use.

Product is not used until it has been inspected or otherwise verified as conforming to specified requirements. When a product is released, pending completion of all measurement and monitoring activities (positive recall), it is identified and recorded to allow recall and replacement if it is subsequently found that the product does not meet requirements.

Records indicate the person authorizing release of product, and provide evidence that the product meets requirements.

9.3 Control of Nonconforming Product and Process

Accurus Aerospace Corporation, Athens, GA ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming product are defined in the Control of Nonconforming Product procedure (QP-830). This process includes:

- Appropriate action to eliminate the nonconformity
- Disposition of the nonconforming material
- Taking action to control the material, precluding its original use
- Taking appropriate action when nonconforming product is detected after delivery

Product dispositioned for scrap is conspicuously and permanently marked, or positively controlled, until physically rendered unusable.

In addition to any contract or statutory and regulatory authority reporting requirements, Accurus Aerospace Corporation, Athens, GA system provides for timely reporting of delivered nonconforming product that may affect reliability or safety. Notification includes a clear description of the nonconformity, which includes as necessary parts affected, customer and/or organization part numbers, quantity, and date(s) delivered.

Use-as-is disposition is only used with authorization by a representative of the design. The organization also does not use dispositions of use-as-is or repair, unless specifically authorized by the customer, if

- The product is produced to customer design, or
- The nonconformity results in a departure from the contract requirements.

9.4 Analysis of Data

Accurus Aerospace Corporation, Athens, GA determines, collects and analyses appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the quality management system can be made. Appropriate data includes data generated as a result of monitoring and measurement and from other relevant sources. Analysis is performed using Statistical Techniques (QP-840)

The analysis of data provides information relating to:

- Customer satisfaction
- Conformance to product requirements
- Characteristics and trends of processes and products including opportunities for preventive action
- Suppliers

9.5 Improvement

8.5.1 Continual improvement

Accurus Aerospace Corporation, Athens, GA continually improves the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review. Management monitors the implementation of improvement activities and evaluates the effectiveness of results (AP-500).

9.5.2 Corrective action

Accurus Aerospace Corporation, Athens, GA takes action to eliminate the cause of nonconformities in order to prevent recurrence. Corrective actions are appropriate to the effects of the nonconformities encountered.

A documented procedure (QP-852) defines requirements for

- Reviewing nonconformities (including customer complaints),
- Determining the causes of nonconformities,
- Evaluating the need for action to ensure that nonconformities do not recur,
- Determining and implementing action needed,
- Records of the results of action taken (see 4.2.4), and
- Reviewing corrective action 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 where timely and/or effective corrective actions are not achieved.
- Identification of additional nonconforming product

9.5.3 Preventive action

Accurus Aerospace Corporation, Athens, GA determines action to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions are appropriate to the effects of the potential problems.

A documented procedure (QP-853) defines requirements for:

- Determining potential nonconformities and their causes

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- Evaluating the need for action to prevent occurrence of nonconformities
- Determining and implementing action needed
- Records of results of action taken
- Reviewing preventive action taken

Related Documents

Management Responsibility AP-500

Customer Related Processes SP-720

Internal Audits QP-822

Monitoring and Measuring of Product and Realization Processes MP-824

Control of Nonconforming Product QP-830

Corrective Action QP-852

Preventive Action QP-853

Statistical Techniques QP-840

Revision History:

Revision	Date	Change	Requested by
E	11/17/05	Complete - Rewrite Replaces QAM-01 through QAM-20	J. Blackmore
F	07/11/06	Rewrote 7.5.2	J. Blackmore
G	3/31/08	Added review dates to list of procedures	R. Irvine
H	12/03/08	Removed review dates from list of procedures	M. Jewell
J	12/09/11	Rewrite. Updated for AS9100 Rev C	D. Scarborough
K	12/12/11	Revised FC pg 13. Updated exclusions. Added statement to 4.1 (Outsourced processes)	D. Scarborough
L	05/31/12	Revised para. 7.5.1.4, Removed 7.5.2 exclusion, updated Org chart	D. Scarborough
M	02/22/2013	Organizational Chart Updated	D. Scarborough
N	07/25/2014	Organizational Chart Updated	D. Scarborough

ACCURUS AEROSPACE ATHENS, LLC

Quality Manual

P	02/14/2017	Company Name, Background & Organizational Chart Updated	M. Quinlan
Q	08/15/2017	Reorganized to meet the requirements of AS 9100 D, Changed McCann references to Accurus.	N. Nuth
R	02/15/2018	Modified IOP to incorporate inspection elements in existing KPI categories	C. MacMullan
S	03/16/2019	4.1 added listing of interested parties.	C. MacMullan
T	1/8/2020	Added file name (QM-001)/Changed header to read Accurus Aerospace Athens, LLC; Edited Organizational Chart pg 6; Edited 4.1 1 st bold paragraph; Deleted Design and Development from 6.6 under "Related Documents"	J. Hughes