



AMERICAN PRECISION PRODUCTS

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QUALITY MANUAL

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Quality Manual

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This American Precision Products (APP) Quality Manual has been prepared and published at my direction. The Quality Management System described herein has my full endorsement, support and approval.

The objectives of this Manual are to describe the scope of APP's Quality Management System, to achieve compliance with the ISO 9001 requirements, and to promote customer satisfaction through continual process improvement.

The contents of this Quality Manual are reviewed periodically and updated as required to assure relevance and congruity with current ISO 9000 Series Standards. In the interest of review and improvement, I invite readers to contact me personally or the Management Representative with questions or comments.



Master Document
Digital Master

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0.0 Introduction

American Precision Products (APP) is a custom injection molding firm located in Huntsville, Alabama in the heart of the southeast. APP is incorporated under the name Number, Inc. and does business as American Precision Products. APP is a privately held firm and is considered a small business for government purchasing.

APP has been in business over thirty years molding thermoplastics, thermoplastic elastomers and thermoset materials, including glass-filled and engineering grades. APP is experienced in both short and long molding runs for commercial and government applications. APP specializes in *the design, manufacture and assembly of precision plastic products*.

This Quality Manual (QM), combined with APP's Quality Management System, encompasses the activities managed and conducted by APP personnel.


This QM defines the Quality System upon which APP conducts its business activities. This QM sets forth the quality policy and objectives and describes how APP's Quality System functions to provide customers with the highest quality products and service. In addition to this QM, a number of Quality System Procedures (QSPs), Work Instructions (WIs), and Quality Records document APP's Quality System.

APP remains dedicated to continuing its excellent reputation for quality performance and customer satisfaction. APP management has chosen to establish a quality management system compliant with and registered to the internationally recognized standard ISO 9001:2000, Quality Management Systems-Requirements in answer to the consistent needs to:

- 1) Improve customer satisfaction,
- 2) Grow in overall quality of performance of products and services,
- 3) Increase productivity, and
- 4) Improve internal efficiencies.

The Quality System is structured to conform to the requirements of ISO 9001:2000 and addresses other applicable standards, codes and regulations, as appropriate.

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Quality Goals

The primary quality goals of APP are as follows:

- a) Ensure customer satisfaction consistent with standards and ethics;
- b) Ensure continuous improvement of our products, processes and services;
- c) Ensure efficiency in providing our products and services;
- d) Ensure defects are minimized by using methods to minimize, and eliminate when possible;
- e) Ensure a mechanism of investigation if any defects occur for follow-up with customers.

Quality Objectives and Activities


The primary quality goals are translated into the following quality objectives:

- a) To create and maintain a management framework and work environment in which the quality of APP products and services can be maximized;
- b) To adequately document the policies, procedures, and results affecting or bearing upon the quality of APP activities;
- c) To strive for continuous improvement in the level of quality provided to internal and external customers;
- d) To clearly define customer needs;
- e) To implement preventive actions and controls to measure customer satisfaction and avoid customer dissatisfaction;
- f) To create a culture to promote a management team committed to quality;

0.1 Administration of APP Quality Manual

This Quality Manual defines policies and objectives regarding the application of the principles of controlled quality to ensure that all products and services rendered are of the required quality and comply fully with customer-stated requirements and expectations.

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The Quality Manual serves the following purposes:

- a) Documents and demonstrates commitment to quality by APP Management to all staff, employees and customers.
- b) Details the operation of the Quality System in all phases and areas.
- c) Defines the responsibilities of personnel concerned with the operation and monitoring of the Quality System.
- d) Acts as a source of reference for Quality System Procedures established in its aim to achieve and maintain the quality of its products and services.
- e) Provides customers with a basis for confidence in capability to produce and provide quality products and services.
- f) Allows APP to conduct internal quality audits and so ensures continued compliance of the quality management system and provides an opportunity for customers or interested agencies to appraise or audit the Quality System.
- g) Assists in the training and education of staff in matters relating to quality.

The Quality System, as documented and implemented, is intended to comply fully with the requirements of ISO 9001:2000, as applicable to APP's operations. The content of this Quality Manual and of supporting documents is applicable to all employees, and will be observed and implemented by all personnel as applicable to their activities. No deviation is permitted without the express knowledge and permission of the Management Representative.

The Management Representative is vested with full responsibility for the proper and timely implementation of the Quality System, together with the appropriate level of authority for ensuring its continuing effectiveness.


Control of this Quality Manual is maintained by the Management Representative; revisions are accomplished in accordance with documented procedures. Uncontrolled copies are appropriately identified and may be issued to customers or interested parties upon request.

0.2 Hierarchy of Quality

This Quality Manual is supported by detailed Quality System Procedures (QSPs), Work Instructions (WIs), Quality Records, and related documentation.

Any future changes will reflect APP's commitment to improve the Quality Management System.

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1.0 Scope

1.1 General

APP has implemented and maintains a Quality Management System (QMS) compliant with ISO 9001:2000, “Quality Management System - Requirements” in order to:

- a) demonstrate the ability to consistently provide products that meet customer and applicable regulatory requirements, and
- b) enhance customer satisfaction through effective application of the system, including processes for continual improvement of the system and assurance of conformity to customer and applicable regulatory requirements and prevention of nonconformity.

NOTE: Monitoring of customer satisfaction, as stated in b), requires the evaluation of information relating to customer perceptions of whether or not APP has met the customer requirements.


The APP President has conferred upon personnel the authority, the resources, and the mandate to implement this Quality Management System. Hence, the President is the source of APP's commitment to quality performance and customer focus by determining and providing, in a timely manner, those resources and facilities, both specific to the product and necessary to implement and improve the quality management system processes and address customer satisfaction.

APP's commitment to quality performance stems from the understanding by each employee that defect prevention, customer satisfaction, conformance to requirements and continuous improvement are essential in today's competitive business environment. Employees are required to know and understand the aspects of the Quality Management System that pertain to their duties and to conform to those procedures and requirements within the Quality Management System.

The Quality System documentation structure consists of a four-tiered system, as follows:

- Level 1: Quality Manual (QM) - This Manual establishes the basic Quality System policies and requirements to meet applicable standards.
- Level 2: Quality System Procedures (QSPs) - Consists of individual procedures

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which implement the policies and requirements established in the Level 1 Manual.

Level 3: Work Instructions (WIs) - Consists of documents that contain detailed instructional related information to support the Level 2 Quality System Procedures.

Level 4: Records/Objective Evidence - This level includes all those records and documents which prove that the Quality System is properly functioning.

Procedures, consistent with the requirements of the ISO 9001 standard and the APP Quality Policy, are prepared and documented. A list of these documents is provided as Appendix A of this manual.

1.2 Application/Permissible Exclusions

APP may exclude quality management system requirements only when both of the following conditions are met:

- The requirement must be within ISO 9001 Clause 7, Product Realization; and
- The exclusion may not affect our ability, nor absolves us from the responsibility, to provide product that meets customer and applicable regulatory requirements.

The Management Representative is responsible for identifying those requirements of ISO 9001 that do not apply to our organization or products, and to propose exclusions of such requirements from the QMS scope.

Top management has the responsibility and authority for evaluating whether the proposed exclusions are appropriate, and for approving them. Evaluation and approval of exclusions are conducted within the framework of management reviews of the quality system (refer to QSP-56-01, Performance of Management Reviews).

Presently, there are no exclusions taken by APP to the requirements of ISO 9001. In the future, if any exclusions are taken they will be documented in this section of the Quality Manual. The excluded requirements will be precisely identified with reference to specific clauses and/or statements in the standard with a brief justification why the exclusion is taken and why it is

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2.0 Normative References

The following normative documents contain provisions which, through reference to this text, constitute provisions of ISO 9001:2000 standard:

- ISO 9000:2000, Quality management systems – Fundamentals and vocabulary
- ISO 9004:2000, Quality management systems – Guidelines for Performance Improvements

3.0 Terms and definitions

- 3.1 Product - the results of a process, including processed materials, services, hardware and software, and combinations of these categories.
- 3.2 Product Realization - sequence of processes and sub-processes required to achieve a product.
- 3.3 QMS - Quality management system

4.0 Quality Management System

4.1 General requirements

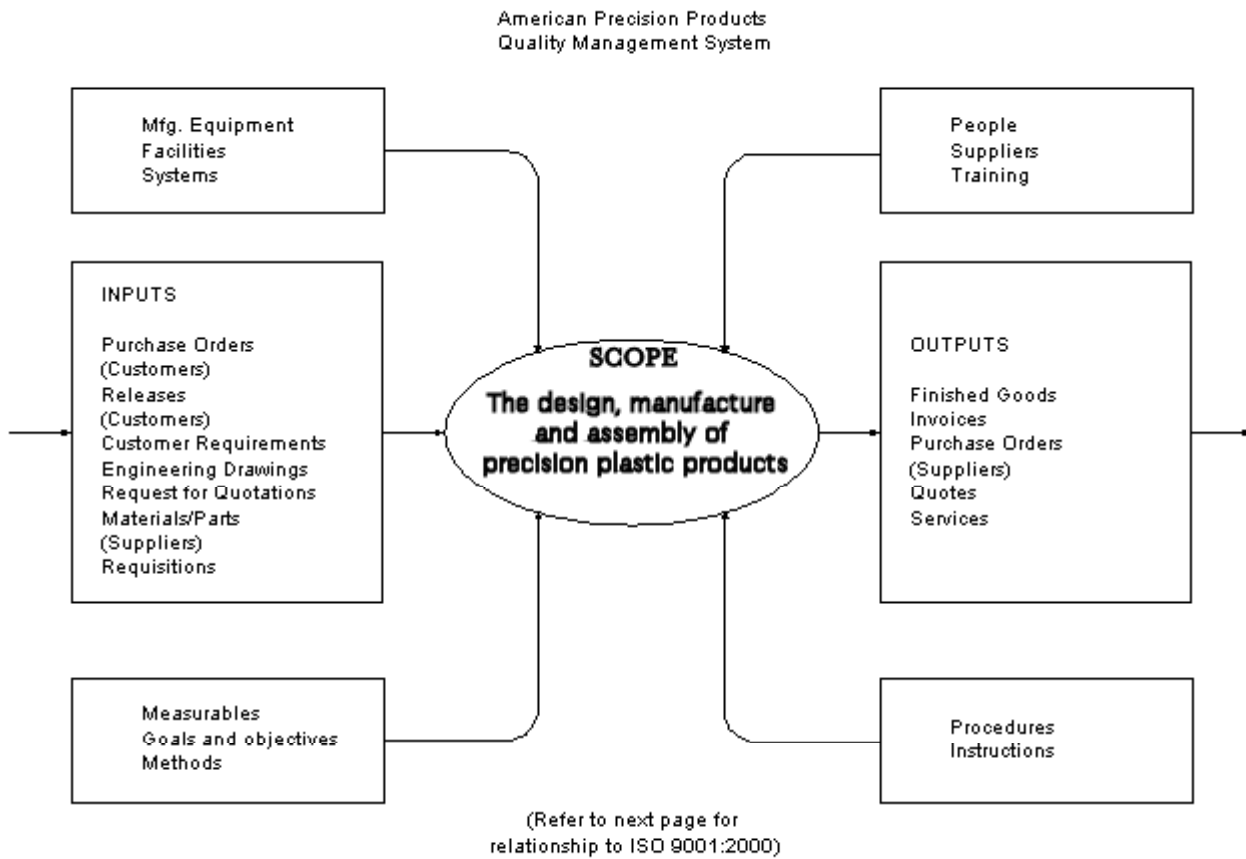
APP has established, documented, implemented, maintains and continually improves a quality management system (QMS) in accordance with the requirements of ISO 9001:2000. To implement this system, APP:

- a) identifies the processes needed for the quality management system and its application;
- b) determines the sequence and interaction of these processes;
- c) determines the criteria and methods required to ensure the effective operation and control of these processes;
- d) ensures availability of resources and information necessary to support the operation and monitoring of these processes;
- e) monitors, measures and analyzes these processes; and
- f) implements actions necessary to achieve planned results and continual improvement.

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APP manages these processes in accordance with the requirements of ISO 9001:2000.

For a visual representation of the interaction between processes of the QMS within the company, refer to the following visuals.





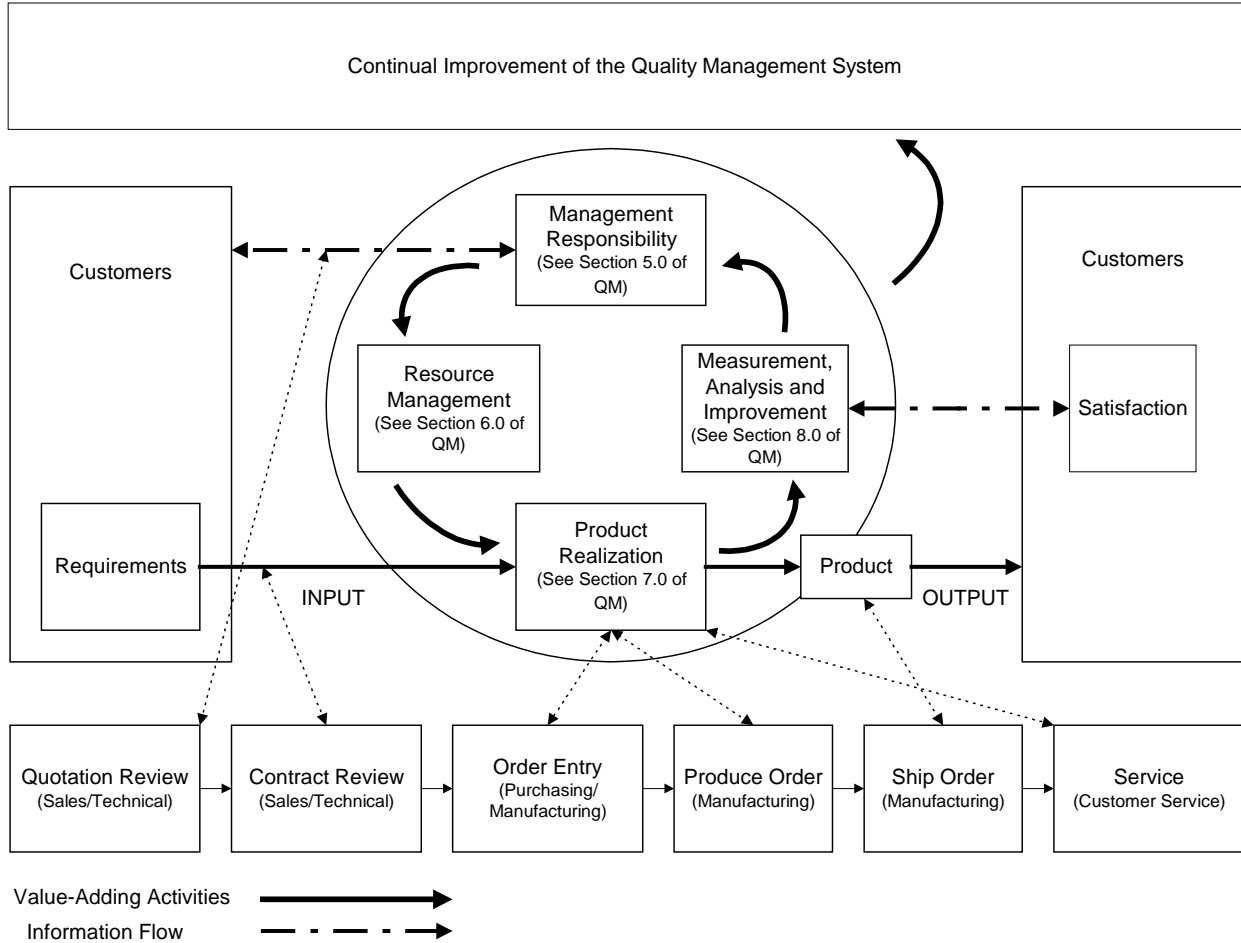
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See Section 4.0 of Quality Manual (QM)



QSP-41-01, APP Quality Plan, provides an overview and description of the sequence and interaction of the processes involved in product realization.

Where APP chooses to outsource any process that affects product conformity with requirements, APP will ensure control over such processes. Control of such outsourced processes will be identified within the quality management system.

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4.2 Documentation Requirements

4.2.1 General

APP QMS documentation includes:

- a) documented statements of our Quality Policy and Quality Objectives;
- b) a Quality Manual;
- c) documented procedures as required by the ISO 9001:2000 standard;
- d) documents required by APP to ensure the effective planning, operation and control of processes; and
- e) records required by the ISO 9001:2000 standard.

The extent of APP's QMS documentation is dependent on the following:

- a) size and type of APP's organization;
- b) complexity and interaction of the processes; and
- c) competence of APP personnel.

For more information regarding APP QMS documentation, refer to QSP-42-01, Quality System Documentation.

4.2.2 Quality Manual

This Quality Manual is maintained current and includes:

- a) the scope of the Quality Management System,
The design, manufacture and assembly of precision plastic products,
- b) procedures established for the Quality Management System or references to them,
- c) a description of the interaction between the processes of the Quality Management System.

4.2.3 Control of Documents

Documented procedures, documents and records used by APP may be in any form or type of medium. Documents used to support the QMS are considered "controlled" documents; any "uncontrolled" document is so marked and will not be revised or updated.

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QSP-42-02, Control of Documents, defines the requirements and controls needed:

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

4.2.4 Control of Records

APP establishes and maintains records to provide evidence of conformity to requirements and of the effective operation of the Quality Management System (QMS). Records will remain legible, readily identifiable and retrievable.

QSP-42-03, Control of Quality Records, defines the controls needed for identification, storage, protection, retrieval, retention time and disposition of records.


5.0 Management Responsibility

5.1 Management Commitment

The following provide evidence of commitment to development and improvement of the QMS as determined by top management:

- a) communicating importance of meeting customer and regulatory and legal requirements;
- b) establishing and communicating a Quality Policy;
- c) establishing and achieving Quality Objectives;
- d) conducting Management Reviews; and
- e) ensuring the availability of necessary resources.

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5.2 Customer Focus

Top management of APP recognizes customer input is significant in defining the requirements and ensures that customer needs and expectations are determined, converted into requirements and fulfilled with the aim of achieving customer satisfaction.

5.3 Quality Policy

Top management ensures that the APP Quality Policy:

- a) is appropriate to our company's purpose;
- b) includes commitment to meeting requirements and continual improvement;
- c) provides a framework for establishing and reviewing quality objectives;
- d) is communicated and understood at appropriate levels of the organization; and
- e) is reviewed for continuing suitability.

APP Quality Policy, posted conspicuously throughout the organization and communicated to every employee, is controlled through this Quality Manual, and is as follows:


<p><i>American Precision Products Quality Policy</i></p> <p><i>“The Company’s objective of consistent high quality performance is met by mandatory adherence to quality procedures, through employee training, adequate resources and continuous improvement.”</i></p>
--

5.4 Planning

5.4.1 Quality Objectives

Top management of APP ensures that the Quality objectives are established at relevant functions and levels. These objectives are measurable and consistent with the Quality Policy including the commitment to continual improvement and objectives needed to meet requirements of the product.

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Quality objectives are established throughout the organization to implement the quality policy, to meet requirements for products and processes, and to improve quality system and quality performance.

Quality objectives define the direction and priorities for continual improvement. Use of quality objectives for facilitating continual improvement is explained in QSP-85-01, Continual Improvement.

5.4.2 Quality Management System (QMS) Planning

APP top management ensures the resources needed to achieve Quality Objectives are identified and planned. The output of such planning is documented and includes:

- a) the processes of the QMS;
- b) the resources needed; and
- c) continual improvement of the QMS.

Planning ensures change (i.e., machines, methods, manning) within APP organization is conducted in a controlled manner and QMS integrity is maintained during any changes. System elements and processes are planned to ensure the system is appropriate for its intended purpose, and are effective and efficient.


The output of quality system planning is documented in this Quality Manual, associated operational procedures, and other referenced documents. These documents identify and define all elements and processes of the quality system.

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and Authority

Functions and interrelations within APP, including responsibilities and authority, are defined and communicated by top management in order to facilitate effective quality management. Specific responsibilities are listed below:

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- a) Employees have the authority and responsibility to prevent the occurrence of nonconformances related to products, services or the Quality Management System;
- b) Employees are responsible to stop (or cause to be stopped) any process which the acceptability or suitability of the product is known or suspected to be compromised;
- c) Employees are responsible to identify problems or potential problems related to the quality of products provided to our customers;
- d) Employees are responsible to initiate, recommend and/or provide solutions to problems or situations affecting product quality or the Quality Management System; and
- e) Employees have the responsibility and authority to control delivery of suspected nonconforming product until the deficiency or unsatisfactory condition has been corrected.

5.5.2 Management Representative

Top management of APP has appointed the President as Management Representative, who irrespective of other responsibilities, has responsibility and authority that includes:


- a) ensuring the processes of the QMS are established, implemented and maintained;
- b) reporting to top management on the performance of the QMS including needs for improvement; and
- c) promoting awareness of customer requirements throughout the organization.

Management Representative responsibilities may also include liaison with external parties on matters relating to the QMS.

5.5.3 Internal Communication

Top management of APP ensures appropriate communication between various levels and functions regarding the processes of the QMS and their effectiveness.

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5.6 Management Review

5.6.1 General

The top management of APP reviews the quality management system (QMS) at periodic intervals, to ensure its continuing suitability, adequacy and effectiveness in accordance with QSP-56-01, Performance of Management Reviews. This review includes assessing opportunities for improvement and evaluates the need for changes to the QMS, including the quality policy and quality objectives. Management Review results are recorded.

5.6.2 Management Review Input

Inputs to management review include current performance and improvement opportunities related to the following:

- a) results of audits;
- b) customer feedback;
- c) process performance and product conformance;
- d) status of preventive and corrective actions;
- e) follow up actions from earlier management reviews; and
- f) changes that could affect the QMS; and
- g) recommendations for improvement.

5.6.3 Management Review Output

Outputs from management reviews include actions related to:


- a) improvement of the effectiveness of the QMS and our processes,
- b) improvement of product related to customer requirements, and
- c) resource needs.

6.0 Resource Management

6.1 Provision of Resources

APP determines and provides, in a timely manner, the resources needed:

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- a) to implement and maintain the QMS and continually improve its effectiveness;
- b) to enhance customer satisfaction by meeting customer requirements.

6.2 Human Resources

6.2.1 General

Personnel performing work affecting quality are competent on the basis of appropriate education, training, skills and experience.

6.2.2 Competence, Awareness and Training

APP performs the following:

- a) identifies competency needs for personnel performing activities related to quality;
- b) provides training or takes other actions to satisfy these needs;
- c) evaluates the effectiveness of the training provided or action taken;
- d) ensures that employees are aware of the relevance and importance of their activities and how they contribute to the achievement of the Quality Objectives;
- e) maintains appropriate records of education, experience, training and qualifications.

Refer to QSP-62-01, Quality System Training Program, for more information regarding the APP training program.


6.3 Infrastructure

APP identifies, provides and maintains the infrastructure needed to achieve conformity of product including:

- a) buildings, workspace and associated facilities;
- b) equipment, hardware and software; and
- c) supporting services (such as transport or communication).

Refer to QSP-63-01, Process Equipment Maintenance Program, for information regarding the process equipment maintenance program conducted by APP.

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6.4 Work Environment

APP identifies and manages the human and physical factors of the work environment needed to achieve conformity to product requirements.

7.0 Product Realization

7.1 Planning of Product Realization

APP plans and develops the processes needed for product realization. Planning of product realization is consistent with the other requirements of the QMS and is documented in a form suitable to the current methods of operation.

NOTE: Documentation that describes how the processes of the QMS are applied for a specific product, project or contract may be referred to as a Quality Plan.

In planning the processes, APP determines the following, as appropriate:

- a) quality objectives and requirements of the product, project or contract;
- b) the need to establish processes and documentation and provide resources and facilities specific to the product;
- c) verification, validation, monitoring, inspection and test activities specific to the product and the criteria for product acceptability; and
- d) records necessary to provide evidence that the realization processes and resulting product meet requirements.


7.2 Customer-related Processes

7.2.1 Determination of Requirements related to the Product

APP determines customer requirements including:

- a) product requirements are defined, where applicable specified by the customer, including requirements for availability, delivery and support;
- b) product requirements not specified by the customer but necessary for the intended or specified use, where known;
- c) obligations related to product, including regulatory or legal requirements; and

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- d) any additional requirements determined by this organization.

QSP-72-01, Order Processing, provides an overview and description of the order process and the associated activities related to it.

7.2.2 Review of Product Requirements

APP reviews identified customer requirements together with additional requirements determined by APP. This review is conducted prior to the commitment to supply product to the customer (e.g., submission of a tender, acceptance of a contract or order) and ensures that:

- a) product requirements are defined;
- b) contract or order requirements differing from those previously expressed, (e.g., in a tender or quotation) are resolved before acceptance of an order; and
- c) APP has the ability to meet the defined requirements.

APP records product requirement reviews and any subsequent follow up actions.

Where the customer provides no documented statement of requirement, the customer requirements are confirmed before acceptance.

Where product requirements are changed during this review process, APP ensures that relevant documentation related to the contract/order is amended and that relevant personnel affected by the change are made aware of the changed requirements.


7.2.3 Customer Communication

APP identifies and implements effective arrangements for communication with customers relating to:

- a) product information;
- b) inquiries, contracts or order handling, including amendments; and
- c) customer feedback, including customer complaints.

Refer to QSP-72-02, Managing Customer Complaints, for information regarding the process for handling customer complaints.

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7.3 Design and Development

7.3.1 Design and Development Planning

APP plans and controls the design and development of product. QSP-73-01, Design and Development, provides an overview and description of the design and development process and the associated activities related to it.

During the design and development planning, APP determines:

- a) the design and development stages;
- b) the review, verification and validation that are appropriate to each design and development stage; and
- c) the responsibilities and authorities for design and development.

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

Planning output is updated, as appropriate, as the design and development progresses.

7.3.2 Design and Development Inputs

Inputs relating to product requirements are determined and records maintained. These inputs include:


- a) functional and performance requirements;
- b) applicable statutory and regulatory requirements;
- c) where applicable, information derived from previous similar designs; and
- d) other requirements essential for the design and development.

These inputs are reviewed for adequacy. Requirements will be complete, unambiguous and not in conflict with each other.

7.3.3 Design and Development Outputs

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

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Design and development outputs will:

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

7.3.4 Design and Development Review

At suitable stages, systematic reviews of design and development are performed in accordance with planned arrangements (see 7.3.1):

- a) to evaluate the ability of the results of design and development to meet requirements; and
- b) to identify any problems and propose necessary actions.

Participants in such reviews include representatives of functions concerned with the design and development stage(s) being reviewed. Records of the results of the reviews and any necessary actions are maintained.


7.3.5 Design and Development Verification

APP performs verification in accordance with planned arrangements (see 7.3.1) to ensure that the design and development outputs have met the design and development input requirements. Records of the results of the verification and any necessary actions are maintained.

7.3.6 Design and Development Validation

APP performs design and development validation in accordance with planned arrangements (see 7.3.1) to ensure that the resulting product is capable of meeting the requirements for the specified application or intended use, where known. Wherever practicable, validation is completed prior to the delivery or implementation of the product. Records of the results of validation and any necessary actions are maintained.

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7.3.7 Control of Design and Development Changes

Design and development changes are identified and records maintained. The changes are reviewed, verified and validated, as appropriate, and approved before implementation. The review of design and development changes includes evaluation of the effect of the changes on constituent parts and product already delivered.

Records of the results of the review of changes and any necessary actions are maintained.

7.4 Purchasing

7.4.1 Purchasing Process

APP controls purchasing processes to ensure purchased product conforms to specified purchase requirements. The type and extent of control is dependent on the effect on subsequent realization processes and their output.

APP evaluates and selects suppliers (e.g., subcontractors, vendors) based on their ability to supply product in accordance with APP requirements. Criteria for selection and periodic evaluation are defined in QSP-74-01, Supplier Evaluation. Results of evaluations and follow-up actions are recorded.


7.4.2 Purchasing Information

Purchasing documents contain information describing the product to be purchased, including where appropriate:

- a) requirements for approval or qualification of:
 - product,
 - procedures,
 - processes,
 - equipment, and
 - personnel;
- b) quality management system requirements.

APP ensures the adequacy of specified requirements contained in purchasing documents prior to their release or communication to the supplier as defined in QSP-74-02, Purchasing.

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7.4.3 Verification of Purchased Product

APP identifies and implements the inspections and activities necessary for verification that purchased product meets specified purchased requirements.

Where APP or our customer proposes to perform verification activities at the supplier's premises, APP specifies the intended verification arrangements and method of product release in the purchasing information.

7.5 Production and Service Provisions

7.5.1 Control of Production and Services Provision/Operations Control

APP controls production and service provisions through controlled conditions including, as applicable:


- a) availability of information that specifies the characteristics of the product;
- b) where necessary, the availability of work instructions;
- c) the use and maintenance of suitable equipment for production or service operations;
- d) the availability and use of measuring and monitoring devices;
- e) the implementation of monitoring and measurement activities; and
- f) the implementation of defined processes for release, delivery and applicable post-delivery activities.

QSP-75-01, Process Control, provides an overview and description of the APP production related facilities and the associated activities within the company.

7.5.2 Validation of Processes for Production and Service Provision

APP validates any processes for production and service provision where the resulting output cannot be verified by subsequent monitoring or measurement. This validation 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. APP arrangements for validation include as applicable;

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- a) defined criteria for review and approval of the processes;
- b) approval of equipment and qualification of personnel;
- c) use of specific methods and procedures;
- d) requirements for records; and
- e) revalidation.

7.5.3 Identification and Traceability

APP identifies, where appropriate, the product by suitable means throughout product realization.

APP identifies the product status with respect to measuring and monitoring requirements as defined in QSP-75-04, Inspection and Test Status.

APP controls and records the unique identification of the product, where traceability is a requirement.

QSP-75-02, Product Identification and Traceability, defines the system used by APP for product identification and traceability.

7.5.4 Customer Property


APP exercises care with customer property while it is under APP's control or being used by APP. APP identifies, verifies, protects and safeguards customer property provided for use or incorporated into the product. If any customer property is lost, damaged, or otherwise found to be unsuitable for use, this will be reported to the customer and records maintained as defined in QSP-75-03, Control of Customer Property.

7.5.5 Preservation of Product

APP preserves conformity of the product with customer requirements during internal processing and delivery to the intended destination, to include identification, handling, packaging, storage and protection of the product and constituent parts of the product as defined in QSP-75-05, Handling, Storage, Packaging, Preservation, and Delivery.

7.6 Control of Monitoring and Measuring Devices

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APP determines and identifies monitoring and measurements to be undertaken and the measuring and monitoring devices required to assure conformity of product to specified requirements as defined in QSP-76-01, Control of Monitoring and Measuring Devices.

Measuring and monitoring devices are used and controlled to ensure that measurement capability is consistent with measurement requirements.

When applicable, measuring and monitoring devices are:

- a) calibrated and verified periodically or prior to use, against devices traceable to international or national standards; where no such standards exist, the basis used for calibration is recorded;
- b) adjusted or re-adjusted as necessary;
- c) identified to enable the calibration status to be determined;
- d) safeguarded from adjustments that would invalidate the measurement result;
- e) protected from damage and deterioration during handling, maintenance and storage.

APP assesses and records the validity of previous measuring results as appropriate when the equipment is found not to conform to requirements, and corrective action is taken when this occurs. Records of the results of calibration and verification are maintained.

APP validates software used for measuring and monitoring of specified requirements, as applicable, prior to use and reconfirmed as necessary.

8.0 Measurement, Analysis, and Improvement

8.1 General

APP defines, plans and implements the monitoring, measurement, analysis and improvement activities needed:

- a) to demonstrate conformity of the product,
- b) to ensure conformity of the quality management system, and
- c) to continually improve the effectiveness of the quality management system.

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This includes the determination of need for, and use of, applicable methodologies including statistical techniques.

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8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

APP monitors information on customer satisfaction and/or dissatisfaction as one of the measurements of performance of the QMS. Methodologies for obtaining and using this information are determined and defined in QSP-82-01, Customer Satisfaction.

8.2.2 Internal Audit

APP conducts periodic internal audits to determine whether the QMS:

- a) conforms to the planned arrangements, to the requirements of the current revision of ISO 9001, and to the quality management system requirements established by the organization; and
- b) continues to be effectively implemented and maintained.

APP plans the audit program taking into consideration the status and importance of the activities and areas to be audited as well as the results of previous audits. The audit criteria, scope, frequency and methods are defined in accordance with QSP-82-02, Quality System Audit Program. Audits are conducted by personnel other than those who perform the activity being audited.

QSP-82-02, Quality System Audit Program, includes the responsibilities and requirements for conducting audits, ensuring their independence, recording results and reporting to management.


APP management takes timely corrective action on deficiencies found during audits.

Follow-up actions include the verification of the implementation of corrective action and reporting of verification results.

8.2.3 Monitoring and Measurement of Processes

APP applies suitable methods for measuring and monitoring of the QMS processes as defined in QSP-82-03, Monitoring and Measuring of Processes. These methods confirm the continuing ability of each process to satisfy its intended purpose. If planned results are not achieved,

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correction and corrective action shall be taken, as appropriate, to ensure conformity of the product.

8.2.4 Monitoring and Measurement of Product

During appropriate stages of the realization process, APP measures and monitors the characteristics of the product to verify that requirements for the product are met in accordance with planned arrangements as defined in QSP-82-04, Inspection and Testing.

Evidence of conformity with the acceptance criteria is documented; these records indicate the authority responsible for release of product.

Product release and service delivery is not allowed to proceed until all the specified activities are satisfactorily completed, unless otherwise approved by a relevant authority, or otherwise approved by the customer.

8.3 Control of Nonconforming Product

APP ensures that product which does not conform to requirements is identified and controlled to prevent unintended use or delivery. QSP-83-01, Control of Nonconforming Product, defines this control and the related responsibilities and authorities dealing with nonconforming product.

APP deals with nonconforming product by one or more of the following ways:


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

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, are maintained.

When nonconforming product is corrected, it is subject to re-verification after correction to demonstrate conformity.

When nonconforming product is detected after delivery or use has started, APP takes appropriate action regarding the consequences of the nonconformity. Proposed rectification of

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nonconforming product may include reporting for concession to the customer, the end-user, regulatory body or other body as appropriate.

8.4 Analysis of Data

APP collects and analyzes appropriate data to determine the suitability and effectiveness of the QMS and to identify improvement opportunities, including data generated by measuring and monitoring activities and other relevant sources.

APP analyzes this data to provide information on:

- a) customer satisfaction and/or dissatisfaction;
- b) conformance to product requirements;
- c) characteristics and trends of processes and products including opportunities for preventive action; and
- d) suppliers.

8.5 Improvement

8.5.1 Continual Improvement

APP plans and manages the processes necessary for the continual improvement of the QMS and facilitates the continual improvement of the QMS through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.

QSP-85-01, Continual Improvement, defines the process for facilitating APP continual improvement activities.

8.5.2 Corrective Action

APP takes corrective action to eliminate the cause of nonconformities in order to prevent recurrence. Corrective action is appropriate to the impact of the problems encountered and is commiserate with the risk associated.

QSP-85-02, Corrective and Preventive Action, defines the requirements for corrective action to include:

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- a) identifying nonconformities (including customer complaints);
- b) determining the causes of nonconformities;
- c) evaluating the need for actions to ensure that nonconformities do not recur;
- d) determining and implementing corrective action needed;
- e) recording the results of action taken and follow-up activities; and
- f) reviewing effectiveness of the corrective action taken.

8.5.3 Preventive Action

APP takes preventive action to eliminate the causes of potential nonconformities in order to prevent occurrence. Preventive action is appropriate to the impact of the potential problems anticipated and is commiserate with the estimated risk associated.

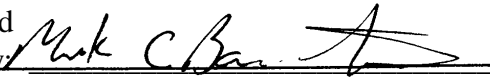
QSP-85-02, Corrective and Preventive Action, defines the requirements of preventive action to include:

- a) identifying potential nonconformities and their causes;
- b) evaluating the need for action to prevent occurrence of nonconformities;
- c) determining and ensuring the implementation of preventive actions needed;
- d) recording results of preventive actions taken; and
- e) reviewing the effectiveness of preventive action taken.

9.0. Revision History

SECTION	REVISION	DATE	DESCRIPTION OF CHANGES
All	0	11/01/05	Initial Release
0.0, 4.1,4.2.2	1	5/2/2006	Revised scope or system
	2	8/8/2007	Changed Address

10.0 Approval

Reviewed and Approved By:  Date: 5-2-2006
 Quality Manager

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Reviewed and
Approved By:



President

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APPENDIX A

List of Quality System Procedures

QSP-41-01, APP Quality Plan
QSP-42-01, Quality System Documentation
QSP-42-02, Control of Documents
QSP-42-03, Control of Quality Records
QSP-56-01, Performance of Management Reviews
QSP-62-01, Quality System Training Program
QSP-63-01, Process Equipment Maintenance Program
QSP-72-01, Order Processing
QSP-72-02, Managing Customer Complaints
QSP-73-01, Design and Development
QSP-74-01, Supplier Evaluation
QSP-74-02, Purchasing
QSP-75-01, Process Control
QSP-75-02, Product Identification and Traceability
QSP-75-03, Control of Customer Property
QSP-75-04, Inspection and Test Status
QSP-75-05, Handling, Storage, Packaging, Preservation, and Delivery
QSP-76-01, Control of Monitoring and Measuring Devices
QSP-82-01, Customer Satisfaction
QSP-82-02, Quality System Audit Program
QSP-82-03, Monitoring and Measurement of Processes
QSP-82-04, Inspection and Testing
QSP-83-01, Control of Nonconforming Product
QSP-85-01, Continual Improvement
QSP-85-02, Corrective and Preventive Action

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APPENDIX B

Definition of Terms

Incoming Products: Materials, supplies, equipment, etc., that are used in the performance of project work and that contribute directly to the realization or production of APP outgoing products.

Outgoing Products: Order deliverables, including any contract-specific request(s) from a customer. Any services provided by APP to its customers are also considered outgoing products.

Project: A planned task or undertaking that is carried out as a result of the award, by a client or customer, of a contract or other legal work agreement to APP.

Quality Record: Any log book, notebook, training record, calibration record, audit record, completed form, paper file, or computer file containing records of quality-related activities, results, or findings.

Quality System: The entire system of documents, procedures, policies, and quality-related hardware that optimizes the quality of APP's performance and that complies with the requirements of the ISO 9001 Quality Standard.

Quality System Procedure (QSP): A document that delineates APP policies and procedures with respect to a major aspect of the Quality System. For example, all APP purchasing practices are spelled out in QSP-74-02, Purchasing, which covers this subject. The QSPs are subordinate to, but supportive of, this Quality Manual. Many of the QSPs are, in turn, supported by various Work Instructions (WIs), which are subordinate to the QSPs.

Regulatory Document: Any document provided by the government containing language that explicitly regulates the activities conducted by APP.

Supplier: Any subcontractor, vendor, consultant, with whom APP interacts and whose products or services affect the quality of APP products and services.

Work Instructions: Any memorandum, letter, document, data, manufacturer's work instruction, or other written statement that discusses or affects APP's plans with respect to performance on a specific contract or job.

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