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# Quality Management System Manual

**ISO 9001:2000**

**Revision G**

1531 W. 17<sup>th</sup> Street, Tempe AZ 85281



# QUALITY SYSTEM MANUAL

Revision: G

Date: 1/29/2009

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## Revisions

DATE	REV	CHANGE
10/24/06	E	Changed Org Chart, Changed all AS9100 2004-01 references to AS9100 Rev B. Changed all OP 050 Control of Documents, Records, and Forms references to OP 050 Control of Documents and Forms or OP 051 Control of Records
1/07/08	F	Revised "Approved By", deleted employee names of President and Quality Manager listed on page 2. Change made to Organizational Chart on page 5 to include Skill Training under Quality Manager. Changes to section 6.2 to include training and training responsibilities. Re-aligned section and sub section numbers. QSM content is stable.
1/20/09	G	Revisions throughout; deleted references to AS9100.

### APPROVED BY

**PRESIDENT**

**QUALITY MANAGER**

*Approval signatures on file*

### HARD COPY DISTRIBUTION:

- ◆ President
- ◆ Vice President of Operations
- ◆ Quality Manager
- ◆ Production Manager, Overlay
- ◆ Production Manager, Paint

### GENERAL DISTRIBUTION:

- ◆ Company Server
- ◆ Company Website

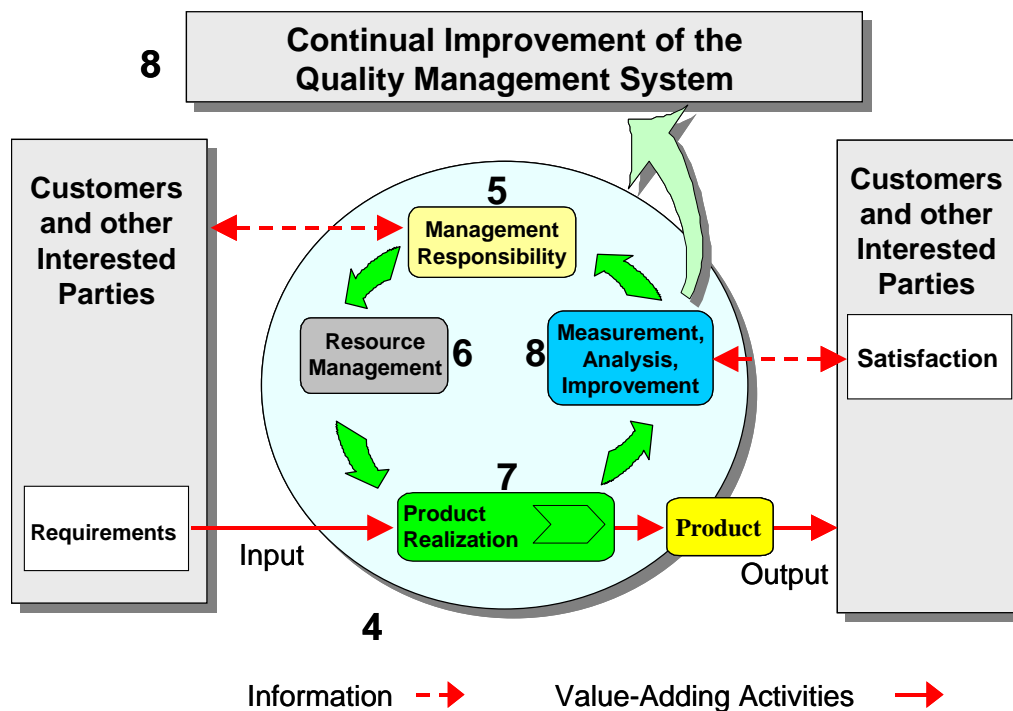
## INTRODUCTION

### GENERAL

AP Industrial (API) has developed and implemented a quality management system to better satisfy the needs of our customers and to improve management of the company. The quality system complies with the International Standard ISO 9001:2000 for the company as a whole.

### PROCESS APPROACH

API has adopted the process approach to quality management. Figure 1 is a conceptual illustration of the process approach at API. Another purpose of this manual is to define and describe the quality system, to define the authorities and responsibilities of the management personnel affected by the system, and to provide Company procedures for all activities comprising the quality system.





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## Quality Policy

**AP Industrial is committed to satisfying our customers' requirements and needs through continually improving our products, services, and business processes.**

**The Quality Policy statement at AP Industrial is:**

**Quality means understanding who the customer is, what the customer's expectations are, and meeting those expectations without error, on time, every time.**

## Company Mission Statement

**"To be a leader in both the surface finishing and screen-printing industries by providing businesses with Superior Quality and Service."**

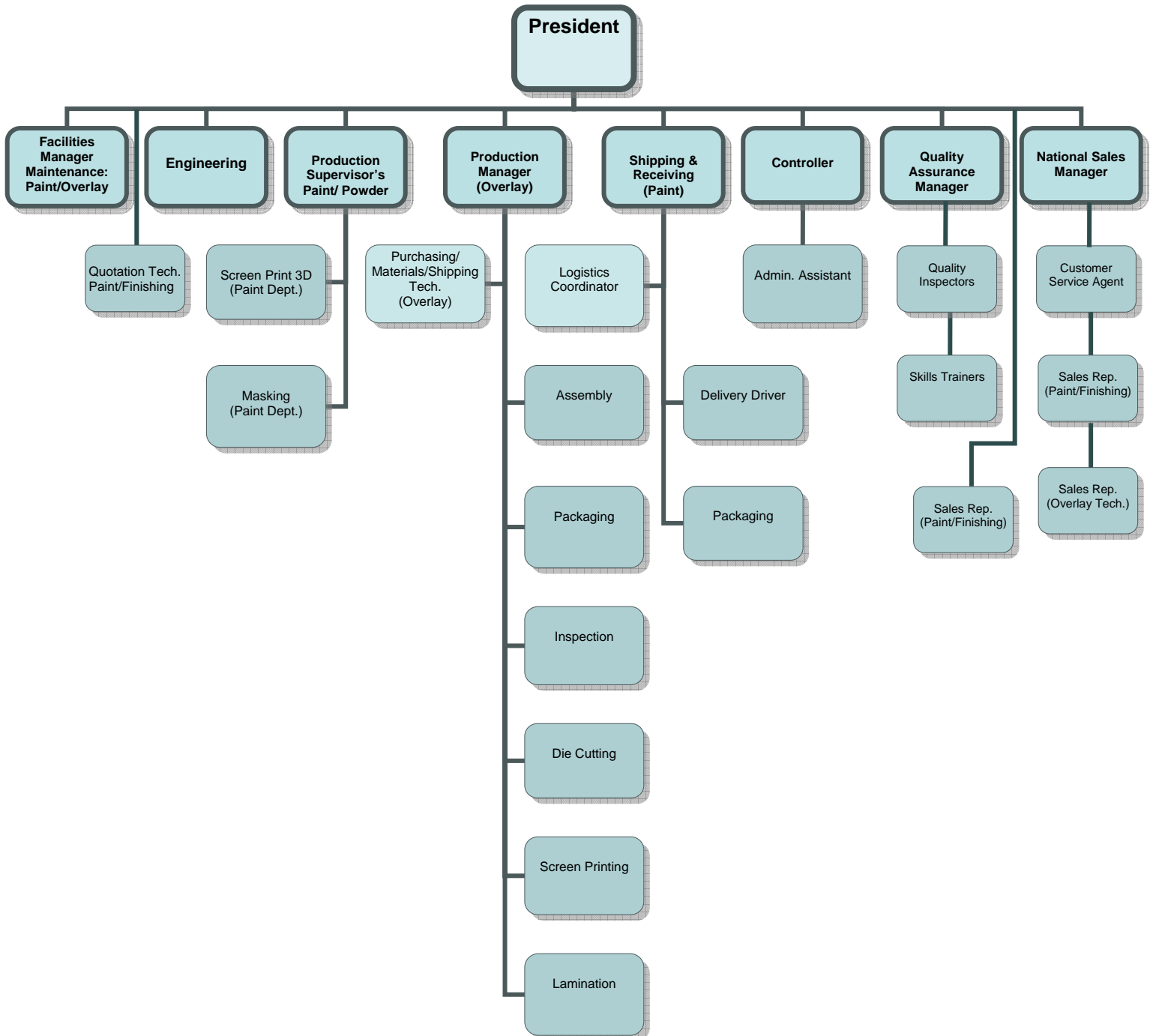
The President of API has formulated this policy. The policy is explained and discussed at the Company orientation training given to all employees. The policy is also posted in conspicuous locations throughout the company. All employees are expected to be familiar with, understand, and comply with the procedures of the Quality Management System that are relevant to their jobs and responsibilities within the company.

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## Organizational Chart





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## 1.0 SCOPE

### 1.1 General

This manual specifies the requirements for the Quality Management System where API;

- a) Demonstrates the ability to provide consistent product that meets customer and applicable regulatory requirements.
- b) Address customer satisfaction through the effective application of the quality system, including processes for continual improvement and the prevention of nonconformity.

### 1.2 API Profile

API is comprised of two distinctly different departments; product finishing department, and technical products department. The product-finishing department (aka paint department) performs primarily liquid paint, powder coating, and chemical conversion coating on a variety of surfaces. The technical products department (aka overlay department) produces primarily membrane switch assemblies and graphic overlays. We serve a wide variety of aerospace, military, medical, and commercial customers.

### 1.3 Applications and Exclusions

This Quality Management System is used by AP Industrial L.L.C.  
(1531 W. 17<sup>th</sup> St., Tempe, AZ 85292).

The quality management system at API is in compliance with the entirety of the ISO9001:2000 quality standards except for the following exclusions:

*Product Finishing (Paint Department)*

7.3 Design and Development.

API does not perform design for this department; therefore this clause does not apply.

7.5.1.5 Control of Service Operations

API does not perform servicing in this department; therefore this clause does not apply.



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API technical products department is in compliance with the requirements of ISO9001:2000.

### 7.3 Design and Development.

API does not perform design and development in this department; therefore this clause does not apply.

### 7.5.1.5 Control of Service Operations

API does not perform servicing in this department, and therefore this clause does not apply.

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## 2.0 NORMATIVE REFERENCE DOCUMENTS

### 2.1 Standards

- ◆ ISO 9000:2000 Quality Management Systems-Fundamentals and Vocabulary
- ◆ ISO 9001:2000 Quality Management Systems- Requirements
- ◆ ISO 9004:2000 Quality Management Systems- Guidelines for Performance Improvements
- ◆ ISO 10007 Quality Management –Guidelines for Configuration Management



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## 3.0 TERMS AND DEFINITIONS

The terms and definitions listed below are frequently used to describe our quality system.

1. **API:** All Pro Industrial, LCC (also known as AP Industrial or All Pro)
2. **Organization:** Same as above.
3. **Clause:** ISO 9001:2000 specific quality management system requirement.
4. **OP:** Operational Procedure. (Example: **OP** 050 Control of Documents)
5. **WI:** Work Instruction. (Example **WI** 9017 Chemical Conversion Application)
6. **Customer:** Any organization or person that receives product from API.
7. **Nonconformity:** Situation where a requirement was not fulfilled.
8. **Process:** Set of interrelated or interacting activities, which transforms inputs (information, materials, etc.) into outputs.
9. **QMS:** Quality Management System.
10. **Supplier:** Any organization or person that provides a product or service to API.

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## 4.0 QUALITY MANAGEMENT SYSTEM

### 4.1 General Requirements:

API establishes, documents, implements, maintains, and continually improves a quality management system in accordance with the requirements of ISO9001

The QMS is based on the process approach model in the introduction of this manual.

To implement the quality management system, API;

- a) Identifies the processes needed for the quality management system. Necessary processes are documented in procedures and work instructions.
- b) Determines the sequence and interaction of these processes. Documenting the QMS does this.
- c) Determines criteria and methods required to ensure the effective operation and control of these processes. This is done by documenting the QMS.
- d) Ensures the availability of information necessary to support the operation and monitoring of these processes. This is accomplished through management reviews, continual improvement activities, and internal audits.
- e) Monitor, measure and analyzes these processes. There are documented procedures for management review, training, inspection, customer satisfaction, and internal audits.
- f) Implements action necessary to achieve planned results and continual improvement. This is accomplished through management reviews, internal audits, and continual improvement activities.

API manages all processes in accordance with the requirements of ISO9001.

When API chooses to outsource product, tool calibration, or processes, controls are identified in OP 060 (Control of Purchasing), OP 100 (Receiving) and OP 110 (Inspection, Measuring, and Test Equipment) to ensure that product conformity is not negatively affected.



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## 4.2 Documentation Requirements

### 4.2.1 API's Quality Management System documentation includes:

- a) Documented statements of a quality policy, and quality objectives. The quality policy is located in the introduction of this manual, and objectives are listed in the Management Review minutes.
- b) This Quality System Manual.
- c) Documented procedures required by ISO 9001
- d) Documents, required by API to ensure the effective planning, operation, and control of processes.
- e) Records required by ISO 9001

### 4.2.2 Quality Manual: API's Quality Manual is the foundation of the quality management system. This manual has been implemented and maintained to include:

- a) The scope of the quality management system, including details, and justification for any exclusions from International Standards. (See section's 1.2 and 1.3)
- b) Documented procedures established to support the quality management system, or reference to them. When documented procedures are referenced, the relationship between the requirements of API's QMS manual and the documented procedures are clearly shown.
- c) Descriptions of the interactions between the processes of the QMS.

### 4.2.3 Control of Documents: Documents: required by the QMS are controlled per OP 050 (Control of Documents and Forms). This procedure details how API:

- a) Approves documents for adequacy prior to issue.
- b) Reviews, updates as required, and re-approve documents.
- c) Identifies the current revision status of documents.
- d) Ensures that relevant versions of applicable documents are available at points of use.
- e) Ensures that documents remain legible, readily identifiable and their distribution controlled.
- f) Ensures that documents of external origin are identified and their distribution is controlled.

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- g) Prevents the unintended use of obsolete documents, and applies suitable identification to obsolete documents that are retained for any purpose.

**4.2.4 Control of Records:** API maintains records to provide evidence of conformity to customer requirements and to measure and monitor the effectiveness of the QMS. OP 051 Control of Records details how records are identified, stored, protected, and retrieved.

## 5.0 MANAGEMENT RESPONSIBILITY

### 5.1 Management Commitment

API's top management is committed to the development and implementation of the QMS and continually improving its effectiveness. API's top management;

- a) Communicates to the organization the importance of meeting customer as well as contractual and regulatory requirements.
- b) Has an established quality policy. This can be found in the introduction of this Quality Manual as well as in posted locations throughout the building.
- c) Has established quality objectives. These are documented in the Management Review Minutes.
- d) Conducts Management Review meetings at least twice a year per OP 010.
- e) Ensures the availability of resources to support the QMS.

### 5.2 Customer Focus

API management ensures that customer needs and expectations are met with the aim of enhancing customer satisfaction (See 7.2.1 and 8.2.1 in this QMS manual).

### 5.3 Quality Policy

The President of API has defined the Company's quality policy in the introduction of this QMS manual. API's top management is responsible for ensuring that the policy is appropriate, shows a commitment to continual improvement, provides a framework for setting objectives, is communicated and understood, and is reviewed for continuing suitability. The quality policy is reviewed at Management Review meetings.

### 5.4 Planning

**5.4.1 Quality Objectives:** API's top management ensures that Quality Objectives, including those needed to meet requirements for product, are established at relevant functions and levels. The objectives are measurable and consistent with the quality policy.

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The Quality Objectives are documented in the Management Review minutes, and measurements are established at this time. Quality Objectives for product are addressed in the planning processes.

**5.4.2 QMS Planning:** Top management in conjunction with the quality manager plans the QMS not only to meet the requirements of ISO9001 but to meet the established quality objectives. The integrity of the QMS is maintained when changes are planned and implemented.

## 5.5 Responsibility, Authority, and Communication

**5.5.1 Responsibility and Authority:** API's Organizational chart described on page 5 of this manual identifies functions and their interrelations within API. Responsibilities and authorities are communicated primarily in the form of job descriptions; however certain details are located in procedures and work instructions. In addition, each clause of ISO9001:2000 have been assigned ownership and this is documented in OP 090 Planning.

**5.5.2 Management Representative:** Top management has appointed the Quality Manager to be the management representative. The Quality Manager has responsibilities and authorities that include:

- a) Ensuring that processes needed for the QMS are established implemented and maintained and that the QMS meets the requirements of ISO9001.
- b) Reporting to management on the performance of the QMS and any need for improvement.
- c) Ensuring the promotion of awareness of customer requirements throughout the organization.
- d) Having the organizational freedom to resolve matters pertaining to quality.

**5.5.3 Internal Communication** API has implemented appropriate processes to ensure communication between all levels and functions regarding the processes of the QMS and their effectiveness. API does a great deal of communication by email and memos. Management meetings are often held, and anyone in management can call a meeting. API also holds Management Review meetings on a regular basis (see 5.6).

## 5.6 Management Review

**5.6.1 General:** API management reviews the QMS at least twice a year to ensure its continuing suitability, adequacy, and effectiveness. This review evaluates any need for change to API's QMS, including the quality policy and quality objectives. A documented procedure has been established (OP 010) to define the controls needed for management review.

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**5.6.2 Review Input:** Input to management review includes current performance and improvement opportunities related to the following activities:

- a) Results of audits, internal and external.
- b) Customer feedback, both positive and negative.
- c) Process performance and product conformity.
- d) Status of corrective and preventive actions
- e) Follow-up actions from previous management reviews.
- f) Changes that could affect the QMS.
- g) Recommendations for improvements.
- h) Quality Objectives
- i) Review of Quality Policy

**5.6.3 Review Output:** The outputs from management review will include actions related to the following activity results:

- a) Improvement to the effectiveness of the QMS and its processes.
- b) Improvement of product related to customer requirements.
- c) Resource needs.

Management Review records shall be maintained in accordance with OP 051(Control of Records).

## 6.0 RESOURCE MANAGEMENT

### 6.1 Provision of Resources

API determines and provides the resources needed to implement and maintain the QMS and continually improve its effectiveness. This is done through planning, management review, and continual improvement activities. Resources are also determined and provided to enhance customer satisfaction by meeting customer requirements. This is accomplished through contract review, planning of product realization, training, process control, inspection, and continual improvement activities.

### 6.2 Quality Assurance Representative, Training Manager

**6.2.1 Assignment of Personnel:** Personnel who are assigned responsibilities that affect the quality of product are to be deemed competent on the basis of applicable education, training, skills, and experience per OP 180 (Training). Records are maintained per OP 051 (Control of Records).

**6.2.2 Competence, Training and Awareness:** API Training Manager:

- a) Identifies competency needs for personnel performing work affecting using job related work instructions.

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- b) Provide training to satisfy these needs. Managers are responsible for their employees and arranging for training.
- c) Evaluates the effectiveness of all training provided.
- d) Ensures that API employees are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives. This is communicated to new employees in orientation and again during one on one training.
- e) Maintains appropriate records of education, experience, training, and qualification per OP 051 (Control of Records).

## 6.3 Infrastructure

API provides and maintains its infrastructure to achieve the conformity of product, including:

- a) Building, workplace, and associated utilities.
- b) Process equipment.
- c) Supporting services

These issues are discussed at management review meetings, or as necessary. All employees are encouraged to point out opportunities for improvement.

## 6.4 Work Environment

API maintains its work environment based upon identification and management of the human and physical factors of the work environment needed to achieve product conformity including cleanliness, lighting, temperature, and humidity.

## 7.0 PRODUCT REALIZATION

### 7.1 Planning of Product Realization

API has planned and developed the processes for product realization with the goal of meeting customer requirements and continually improving the QMS. A documented procedure (OP 090 Planning) has been established. When planning product realization, API considers;

- a) Quality objectives for the product.
- b) The need to establish processes documents, and provide resources specific to the product.
- c) Required verification, validation, monitoring, inspection and test activities specific to the product and the criteria for product acceptance.

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- d) The records necessary to provide confidence of the processes and resulting product (Job Travelers, Inspection Records).

API maintains records of this planning in the form of job travelers and work instructions.

## 7.2 Customer-Related Processes

**7.2.1 Determination of Requirements Related to the Product:** API determines the customer requirements including:

- a) Requirements specified by the customer. This is done during the Contract Review process per OP 030.
- b) Requirements not specified by the customer but necessary for intended or specific use where known. This is done in planning and engineering.
- c) Statutory and regulatory requirements related to the product.
- d) Any requirements determined by API during contract review and/or engineering.

**7.2.2 Review of Product Requirements:** API Sales reviews the customer requirements related to product prior to commitment to supply product to customer. This review is performed per OP 030 (Contract Review) and ensures that:

- a) Product requirements are defined (type of processing, quality requirements, etc.). If customer fails to state a product requirement, API clarifies with customer before acceptance.
- b) The contract or order requirements differing from those previously expressed (in a quotation or previous order) are resolved. If customer requires changes, relevant documents are amended and relevant personnel are made aware.
- c) API has the capability to meet the defined requirements (test requirements, processing capability, due dates, etc.)

The results of the review and subsequent follow-up actions are recorded per OP 051 (Control of Records)

**7.2.3 Customer Communication:** API Sales arranges communication with customers per OP 030(Contract Review) and OP 141 (Customer Satisfaction) relating to:

- a) Product information.
- b) Enquires, contracts, or order handling, including amendments.

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- c) Customer feedback, including customer complaints (see 8.2.1 Customer Satisfaction).

## 7.4 Purchasing

**7.4.1 Purchasing Process:** API has an established purchasing process (OP 060 Purchasing) to ensure that the purchased product conforms to requirements. Suppliers are selected based on their ability to supply quality products in accordance with documented requirements. Suppliers are also periodically reviewed, evaluated, and re-evaluated, and the records are maintained per OP 051 (Control of Records).

**7.4.2 Purchasing Information:** API's Vice President of Operations or designee ensures that Purchase Orders contain information describing product to be purchased, including where appropriate:

- a) requirement's for approval or qualification of product, procedures, processes and equipment,
- b) requirements for qualification of personnel,
- c) quality management system requirements,

API ensures adequacy of specified purchase requirements prior to order per OP 060.

**7.4.3 Verification of Purchased Product:** API verifies that purchased product meets specified requirements. There is a documented procedure (OP 100 Receiving) for verifying and/or inspection of purchased product.

When API performs verification at supplier premises, API states the intended verification arrangements and the method of product release on the Purchase Order.

## 7.5 Production

**7.5.1** API plans and performs production and service activities under controlled conditions per OP 090 (Product Planning). These conditions include, as applicable;

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

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**7.5.2 Validation of Processes for Production:** API validates production processes where the resulting output cannot be verified by subsequent measurement. These processes are referred to as “Special Processes”.

This validation demonstrates API’s ability to achieve planned results. API has established arrangements for these processes including, where applicable;

- a) defined criteria for review and approval of processes,
- b) qualification and approval of special processes prior to use, (e.g. titration of the Chemical Conversion process),
- c) approval of equipment and qualification of personnel,
- d) the use of specific methods and procedures,
- e) control of significant operations and parameters of special processes in accordance with documented process specifications and changes,
- f) necessary records, and
- g) re-validation.

**7.5.3 Identification and Traceability:** Where appropriate, API identifies product throughout processing per OP 080 (Identification and Traceability).

The identification of configuration is documented at all times on the Job Traveler to identify actual status of product. Product status with respect to monitoring and measuring is also documented on the Job Traveler.

API has identified who is authorized to approve work, and how this documentation is controlled per OP120 Stamp Control.

Where traceability is a requirement (serial numbers, etc), API records and controls the unique identification of the product.

**7.5.4 Customer Property:** API exercises care with customer property while it is under API control, or while being used by API. Documented procedure OP 070 (Control of Customer Supplied Product) details how API identifies, verifies, protects, and safeguards customer property. If any customer property is lost, damaged, or otherwise found to be unsuitable for use, this is reported to the customer per OP 130 (Control of Nonconforming Product) and records are maintained per OP 051 (Control of Records).

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**7.5.5 Preservation of Product:** API takes measures to preserve the conformity of product during internal processing and delivery to intended destination per OP 150 (Storage and Preservation) and OP 151 (Shipping). This preservation includes identification, handling, packaging, storage, and protection.

## 7.6 Control of Monitoring and Measuring Equipment

API determines the monitoring and measurement to be performed, and the monitoring and measuring devices needed to provide evidence of product conformity.

API maintains a database of all measuring and monitoring equipment per OP 110

(Inspection, Measuring, and Test Equipment). Where necessary to ensure validity of results, equipment is:

- a) calibrated at specified intervals,
- b) adjusted or re-adjusted as necessary;
- c) identified to enable calibration status to be determined,
- d) safeguarded from adjustments that would invalidate measurement result,
- e) protected from damage and deterioration during handling, maintenance, and storage,
- f) recalled when calibration is due or necessary;

API also assesses and records the validity of previous measuring results when equipment is found to be out of calibration. Equipment is pulled from use and re-calibrated; action is taken if product is affected.

## 8.0 MEASUREMENT, ANALYSIS, AND IMPROVEMENT

### 8.1 General:

API plans and implements the monitoring, measurement, analysis, and improvement processes (including statistical controls) needed to;

- a) demonstrate product conformity,
- b) ensure conformity of the QMS and
- c) continually improve the effectiveness of the QMS.

This is done by inspection of product, internal auditing, management reviews, corrective and preventive action, and continual improvement activities.

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## 8.2 Monitoring and Measurements

**8.2.1 Customer Satisfaction:** API monitors information on customer satisfaction and/or dissatisfaction as one of the measurements of performance of the quality management system. The methodologies for obtaining and using this information are described in procedure OP 141 (Customer Communication).

**8.2.2 Internal Audits:** API conducts internal audits on a regular basis to determine if the QMS:

- a) conforms to planned arrangements,
- b) meets ISO9001 requirements, and
- c) is effectively implemented and maintained.

Audits are performed per OP 170 (Internal Auditing). Internal audits are one of the key measurements of all API Processes.

**8.2.3 Monitoring and Measurement of Processes:** API applies whenever possible, measuring and monitoring of quality system processes. These methods demonstrate the ability of API's processes to meet desired results. When planned results are not achieved, correction and corrective action are taken, as appropriate, to ensure conformity of product.

**8.2.4 Monitoring and Measurement of Product** – API monitors and measures the characteristics of product in receiving inspection, in-process inspection, and final inspection to verify that requirements are met. Documented procedures have been established (OP 100 Receiving and OP 101 Inspection) for product inspection.

Records of product conformity are maintained per OP 051 (Control of Records).

Product is not released until all operations have been satisfactorily completed, unless approved by a relevant authority. (Quality Manager or Customer)

## 8.3 Control of Nonconformity

**8.3.1** API ensures that product which does not conform to requirements is identified and controlled to prevent unintended use or delivery.

A documented procedure has been established (OP 130 Control of Nonconforming Product) to define control of nonconforming product.

API deals with nonconforming product by one or more of the following methods;

- a) by fixing or reworking the product until it meets requirements,

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- b) by obtaining a customer concession to accept parts as-is,
- c) by taking action to preclude use (scrapping, or disfiguring)

Records of nonconformities and actions taken, including customer concessions, are maintained per OP 051 (Control of Records).

When nonconforming product is corrected, it is re-inspected to ensure it conforms to requirements.

When nonconforming product is detected after delivery, API will take action appropriate to the effects, or potential effects, of the nonconformity.

## 8.4 Analysis of Data

API determines, collects and analyses appropriate data to demonstrate the suitability and effectiveness of the QMS and to evaluate where improvement can be made. This data comes from a number of sources such as internal audits, management reviews, product verification, and continual improvement activities. Data is collected regarding

- a) customer satisfaction, (See 8.2.1),
- b) product conformity (see 8.2.4 and 8.3),
- c) characteristics and trends of processes and products including opportunities for preventive action, and
- d) supplier performance per OP 060 (Control of Purchasing).

## 8.5 Improvement

**8.5.1 Continual Improvement:** API continually improves the effectiveness of the QMS through the use of the Quality Policy, quality objectives, audit result analysis of data, corrective and preventive action, and management review.

**8.5.2 Corrective Action:** API takes action to eliminate the causes of nonconformities in order to prevent recurrence. Corrective actions are appropriate to the effects of the nonconformities encountered.

API has a documented procedure (OP 140, Corrective Action) to define requirements for;

- a) reviewing nonconformities (including customer complaints)
- b) determining causes of nonconformities,
- c) evaluating the need for action to ensure that nonconformities do not occur,

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- d) determining and implementing action needed,
- e) record the results of action taken
- f) review of corrective action taken,

**8.5.3 Preventive Action:** API 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.

API has a documented procedure (OP 142 Preventive Action) to define the requirements for;

- a) determining potential nonconformities and their causes,
- b) evaluating the need for action to prevent occurrence of nonconformities,
- c) determining and implementing action needed,
- d) records of results of action taken, and
- e) review of action taken.