

Anmar Metrology, Inc.

Quality Assurance Manual

Uncontrolled Copy

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Approved by: _____

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INTRODUCTION

ANMAR METROLOGY, INC., based in San Diego California, is an industry leader specializing in the Calibration and Repair of Measuring & Test Equipment. Quality, integrity and customer satisfaction are of the utmost importance in the design, implementation, and performance of our services.

Anmar's quality management system documentation is written, implemented and, maintained to meet the most current requirements as applicable of ISO 9001:2008, ISO/IEC 17025:2005 and ANSI/NCSL Z540-1:1994.

Purpose:

The purpose of this manual and associated procedures is to describe the manner in which Anmar successfully operates with a reputation for quality and technical competence using the processes described in ISO 9001:2008, ISO/IEC 17025:2005 and ANSI/NCSL Z540-1:1994. The sequence, interaction, and management of the processes that support our business is described in this manual along with the basic policies for quality.

1.0 SCOPE

ISO 9001:2008 & ISO 17025:2005 apply to the facility located in San Diego California involved in the Calibration and Repair of Measuring & Test Equipment.

The certificate and scope statement for ISO 9001:2008 is as follows:

Anmar Metrology, Inc.

7726 Arjons Drive, San Diego, CA 92126

This certificate is valid for the following products/services:

CALIBRATION and REPAIR SERVICES

EXCLUSIONS

ANMAR METROLOGY, INC. has the following exclusion(s) from the ISO standard(s)

Clause	Section Title	Justification
ISO 9001:2008, 7.3	Design and development	Anmar Metrology does not design or develop any products
ISO 17025:2005, 5.7	Sampling	Anmar Metrology does not engage in Sampling.

2.0 REFERENCE

The quality management system is based on the International Organization for Standardization (ISO) 9000 Quality Standards including the following:

Reference Standards

ISO 9001:2008	Quality management systems - Requirements
ISO/IEC 17025:2005(E)	General Requirements for the Competence of Testing and Calibration Laboratories
ANSI/NCSL Z540-1:1994	Calibration Laboratories and M&TE – General Requirements
ISO 9000:2005(E)	Quality management systems – Fundamentals and vocabulary

Military Specifications

MIL-STD-45662A	(RESCINDED) Calibration Systems Requirements Note; Continues in effect for existing contracts or purchase orders referencing this requirement.
MIL-I-45208A	(RESCINDED) Inspection System Requirements Note; Continues in effect for existing contracts or purchase orders referencing this requirement.
MIL-Q-9858A	(RESCINDED) Quality Program Requirements Note; Continues in effect for existing contracts or purchase orders referencing this requirement.

Nuclear Requirements

10CFR50 Appendix B	Nuclear safety-related work.
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3.0 TERMS AND DEFINITIONS

Industry Standard Terms and Definitions Apply.

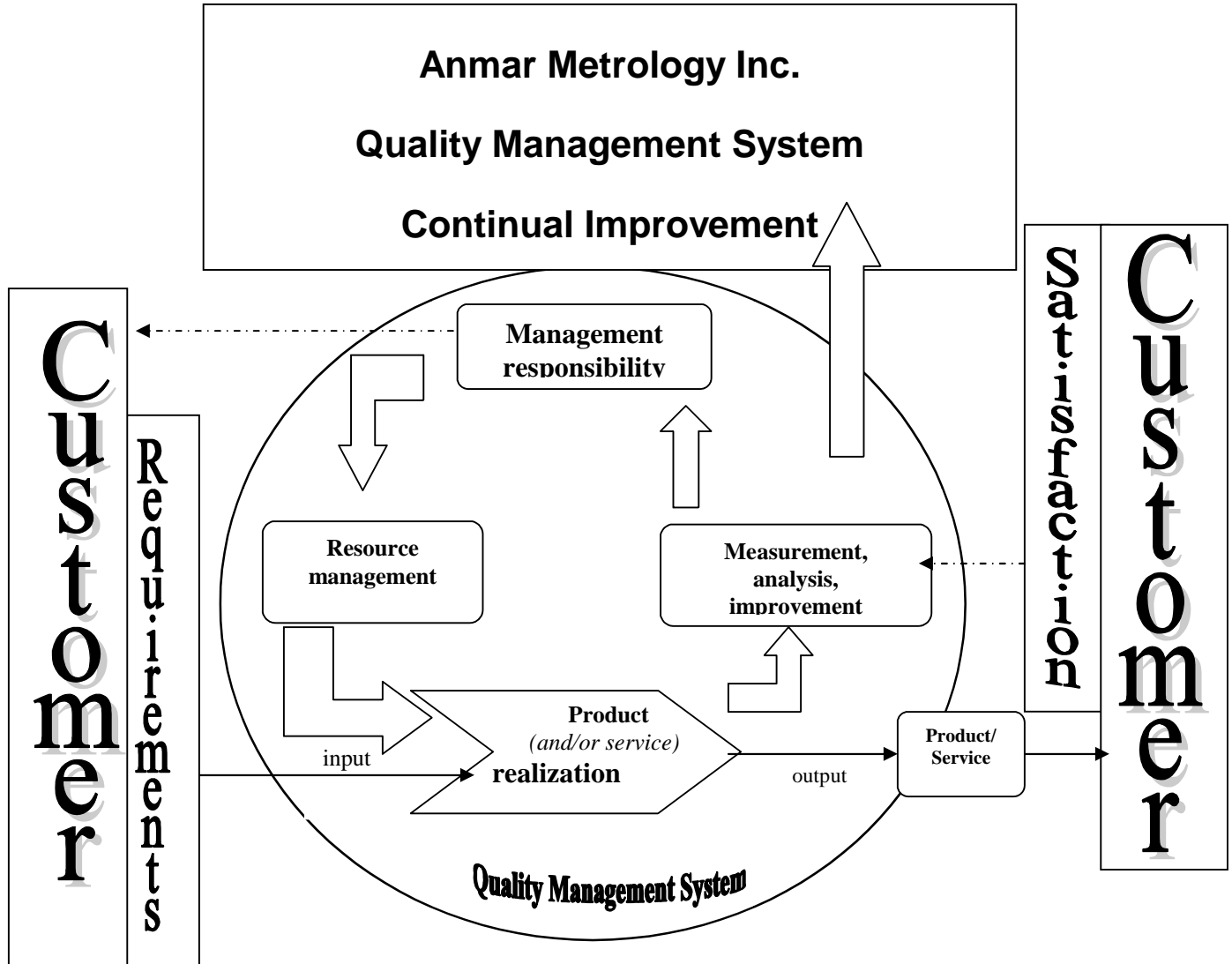


Figure 1-1
Quality Management System Process

4.0 QUALITY MANAGEMENT SYSTEM

Anmar has established, documented, implemented and maintains a Quality Management System (QMS) that utilizes the ISO 9001:2008 standard to continually improve the internal process and promote customer satisfaction.

4.1 General Requirements

This manual specifies the requirements for a QMS whereby Anmar Metrology, Inc.:

- Demonstrates its ability to provide consistent services that meets customer and applicable regulatory requirements.
- Addresses customer satisfaction enhancement through effective application of the system, including the process for continual improvement and the assurance of conformity to customer and applicable regulatory requirements.
- Further establishes the requirements for instrument control and documentation of instrument services for equipment owned and/or controlled at all locations. It further extends to customer equipment when the purchase order references the requirements such as ISO 9001, ISO/IEC 17025, ANSI/NCSL Z540-1, MIL-STD 45662A, or ISO 10012.

While the basic structure of the quality system is designed to comply with the requirements of ISO 9001:2008, ISO/IEC 17025:2005 and ANSI/NCSL Z540-1: 1994, these requirements are complementary (not alternative) to specific customer technical or quality assurance standards referenced by purchase order or contract.

Any deviation specified as a requirement by the customer shall be documented in either the purchase order or as an amendment to the purchase order.

The requirements of the referenced standards and this QMS are designed to prevent nonconformities during all quality affecting activities performed by Anmar, and for detecting and implementing the means to prevent their recurrence.

4.1.1 Quality Management System Sequences, Interactions and Outline

Quality Management System Process (figure 1-1) represents the continual improvement model utilized by Anmar Metrology. QMS Process Interactions, Appendix A reflects the overall QMS Process flow.

Calibration and Repair of Test & Measuring Equipment is the primary process carried out by Anmar Metrology, Inc. Items are calibrated at Anmar's laboratory and at the customer's site. The process of calibration is identical except that items calibrated at the customers' site are documented on the on-site log sheets (FRM-039) for later processing through our calibration system (METNAV) while items calibrated at Anmar's facility are immediately processed through the system.

The sequence of our primary process of Calibration is as follows:

Items are received at Anmar's facility, purchase order requirements are reviewed by the Quality Assurance Manager utilizing approved contract review procedure (QAP-004) to ensure that the customer's requirements can be met and that Anmar does have the capability to satisfy them. These requirements are communicated to all departments.

Data Entry Personnel enter the items into the calibration system by utilizing approved receiving inspection procedure (QAP-008) and approved data entry procedure (QAP-010) and they are tracked throughout the process by utilizing approved handling procedure (QAP-012) that includes a clear identification of each item by customer, description, service required, accessories included, date received, and unique work order number.

Calibration cycles are determined by the customers based on their own history and the criticality of the equipment to their own processes. The cycles are documented on the customer's request for service.

The technical manager assigns the work to qualified technicians based on the proper metrology authorizations for the work involved.

Items are calibrated using the manufacturer's published procedures and specifications as available unless otherwise specified by the customer. The technicians follow standard procedure (QAP-009) to perform calibration that includes physical inspection, comparing the unit under test to known standards, determining whether the item is within tolerance, recording the results as required, adjusting the item into tolerance as needed, affixing an appropriate calibration label and calibration void seal as necessary, and placing the item in the final inspection area when completed.

Qualified quality assurance personnel, utilizing approved inspection procedure QAP-008 perform final inspection. The item is shipped back to the customer utilizing approved procedure for shipping and handling QAP-015.

Anmar's Management-Oriented Processes are:

- a) Business Planning - a process to plan and communicate our quality and business objectives
- b) Business Management Review - a planning and management process used to ensure that quality requirements are planned and the QMS is reviewed for adequacy. Results and process metrics are reviewed to ensure that quality objectives are met. As a result of periodic reviews, any process may be changed in a controlled manner.
- c) Internal Auditing – a process to assist management in assuring that the QMS remains compliant to the prescribed processes and is implemented as defined.
- d) Corrective and Preventive Action – a process to ensure that known and potential problems (including customer complaints) are addressed in an effective and timely fashion. As a result of this process, any process may be changed in a controlled manner.

Anmar's Support Functions are:

- a) Quality Assurance - a group of processes, that ensures the quality of activities and services provided through development, implementation and testing. These processes include Calibration, Document and Records Control, Supplier Quality Management, and Non-conformances.
- b) Facilities – Provides the infrastructure such as equipment, building and working environment needed for the organization to perform its functions, meet its business goals, and the needs and expectations of its customers.
- c) IT – Provides the systems needed for communications within the organization, storage and retrieval of data and information needed by the organization to conduct business and for personnel to fulfill their responsibilities.
- d) Finance – monitors, reports and helps drive improvement of the organization's revenues and other financial metrics.
- e) Training – process to ensure that personnel are adequately qualified and trained to perform the tasks assigned.
- f) Customer Satisfaction – a process to collect data to measure customer satisfaction and generate improvement plans as applicable.
- g) Purchasing – Control of outsourcing, as defined in QAP 006 Procurement in the QMS ensuring conformity to all requirements, including customer specific requirements.

The QMS is outlined in this Quality Manual and process procedures that address specific management processes within the company. The processes are documented to the extent necessary to explain specific activities where such documentation is necessary, required by the standard, or valuable in assuring the quality of Anmar's processes and services.

4.2 Documentation Requirements

4.2.1 General

Anmar maintains a document and control system that includes the Quality Manual, Quality Policy, Quality Objectives, reference procedures, documents, records, and company policies that are required by ISO 9001:2008, customers needs/expectations, and our business needs.

4.2.2 Quality Manual

The Quality Manual is the primary document that provides a general overview of the QMS process, Quality System, and Quality Policy. The manual is controlled by internal document control procedures. The Quality Manual references the primary processes and procedures that are necessary to support our quality management systems.

4.2.3 Controlled Documents and Procedures

The QMS is supported by controlled documents and procedures that include a three-tiered model (Appendix B), and includes the following:

- a) The Quality Assurance Manual (QAM)
- b) Quality Assurance Procedures (QAP).
- c) Work Instructions (WRK)
- d) Documented procedures as required by ISO 9001:2008, ISO/IEC 17025, and ANSI/NCSL Z540-1.
- e) Documents needed to ensure the effective planning, operation and control of the processes implemented.
- f) Quality system requirements imposed by the applicable regulatory authorities.

DOCUMENTS RELATED TO THIS MANUAL INCLUDE ALL PROCEDURES WITH THE PREFIX:

QAM Quality Assurance Manual: The primary document that provides a general overview of the QMS process, quality system, and quality policy. The manual is controlled through Anmar's internal document control system. The quality manual references the primary processes and procedures that are necessary to support our QMS.

QAP Quality Assurance Procedures: The second level system procedures generated under the direction of the Quality Assurance Manager to detail specific compliance to the QMS.

WRK Work Instructions: The third level system instructions generated under the direction of the Quality Assurance Manager to provide specific detailed instructions such as laboratory Work Instructions, reports, and calibration procedures and specific compliance to the QMS.

4.2.4 Control of Documents

The document control system is designed to ensure that current authorized process procedures and work instructions are available and used in all aspects of the QMS program.

Standard procedures are established for generation, revision, approval, and distribution of process procedures and work instructions. Only properly authorized, current, and controlled procedures and work instructions are used in each operation performed during the service cycle.

Procedures and work instructions required for the QMS are controlled by procedures that address the following:

- Approval of documents for adequacy prior to issue.
- Ensuring appropriate documents are periodically reviewed, and where appropriate, revised to ensure continuing suitability and compliance with applicable requirements.
- Ensuring documents are uniquely identified, any changes are noted, and the current revision status is reflected.
- Ensuring authorized revisions of appropriate documents are available at all locations where operations essential to the effective functioning of the laboratory are performed.
- Ensuring documents remain legible and are readily identifiable.
- Ensuring documents of external origin are identified and that distribution is controlled.
- Ensuring invalid or obsolete documents are promptly removed from all points of issue or use, or otherwise assured against unintended use.
- Preventing the unintended use of obsolete documents, retained for either legal or knowledge preservation purposes, ensure that they are suitably indexed and labeled.

4.2.4.1 Control of Data

Calculations and data transfers are subject to appropriate checks in a systematic manner. When data is collected through automation and is used for the acquisition, processing, recording, reporting, storage or retrieval of test or calibration data, the laboratory ensures the following:

- a) User developed software is documented in sufficient detail and is suitably validated for adequacy.
- b) Procedures are established and implemented for protecting data that address the integrity and confidentiality of data entry or collection, data storage, data transmission and data processing.
- c) Computers and automated equipment are maintained to ensure proper functioning and are provided with the environmental and operating conditions necessary to maintain the integrity of test and calibration data.
- d) Commercial off-the-shelf software (e.g. word-processing, automated calibration, database and statistical programs) in general use with their designed application range is considered validated. However, laboratory software configuration/modifications shall be validated.

Changes to documents and data are reviewed and approved by the Quality Assurance Manager or designated representative. The designated individual shall have access to pertinent background information upon which to base their review and approval. Documents and data may be initiated by any employee but must be reviewed and approved by the Quality Assurance Manager or designated representative prior to releasing for use.

Procedures are established to define the process of routinely backing up data. The process includes provisions for the utilization of passwords to prevent unauthorized access or amendment of these records.

Reference Documents:

QAP-005 Document & Data Control

4.2.5 Control of Quality Records

Quality records are maintained to meet ISO 9001:2008 requirements, customer requirements, regulatory requirements, and company needs. Quality records include but are not limited to calibration certificates, repair reports, evaluation reports, log sheets, results of internal audits, contract reviews, minutes of meetings, and purchase orders.

Procedures are established to define how records are stored, protected, retrieved, retained, and dispositioned. The records may be retained in either paper form or in an electronic format as defined by the individual area. A retention time for each type of record is specified.

Documents from approved vendors are incorporated into the procedures for controlling quality records.

Test records containing data calculations identify the specific task. Tests contain sufficient data to facilitate repeatability under similar conditions.

All records are legible and complete, as required by controlling procedures, and are stamped, initialed, signed or otherwise authenticated and dated by authorized personnel.

In the case of records stored electronically, measures are taken to avoid loss or change of original data. The use of management passwords, locked documents and read only functions are being utilized.

4.2.5.1 Calibration Certificates

Certificate Format

Anmar provides a Certificate of Calibration form that is controlled and minimizes the possibility of misunderstanding or misuse. All information on the Certificate of Calibration is standardized as much as possible.

When compliance to ISO/IEC 17025 is required, the uncertainty of measurement and/or a statement of compliance with an identified metrological specification or clause are included.

When a statement of compliance to a specification is made omitting the measurement results and associated uncertainties, the laboratory records those results and maintains them for possible future reference.

When M&TE requires repair or adjustment, the calibration results for before and after data is be reported on the Certificate of Calibration or Repair Report, as required. If an adjustment or repair cannot be performed, an Evaluation Report is utilized that documents as found/as left data or a description of the problem.

Amendments to Calibration Certificates

An approved manager shall perform changes to Certificates of Calibration. Material amendments to Certificates of Calibrations must be documented in the form of a supplemental report and must show that they have been revised. The certificate shall be time and date stamped to show the latest revision.

When it is necessary to issue a completely new calibration certificate, it shall be uniquely identified and shall contain a reference to the original that it replaces.

4.2.5.2 Opinions and Interpretations

Anmar utilizes Evaluation Reports for recommendations based on findings of M&TE that does not meet the requirements established by procedures or customers' requests.

4.2.5.3 Calibration Results Obtained from Subcontractors

When M&TE is subcontracted, all vendor certificates and data reports are attached to the Anmar certificate of calibration identifying the subcontractor/vendor that performed the actual calibration/repair.

4.2.5.4 Electronic Transmission of Results

In the case of transmission of test or calibration results by telephone, telex, facsimile or other electronic or electromagnetic means, the requirements of ISO 9001:2008 & ISO 17025:2005 shall be met.

Reference Documents:

QAP-016 Control of Quality Records
QAP-020 Control of Computerized/Electronic Media

5.0 MANAGEMENT REQUIREMENTS (QAP-001)

5.1 Management Commitment

Top management provides evidence of its commitment to the development and implementation of the QMS and continually improving its effectiveness by:


1. Establishing the quality policy and objectives
2. Conducting/attending management reviews
3. Ensuring availability of necessary resources
4. Communicating the importance of meeting the customer's requirements, legal requirements and regulatory requirements to the organization.
5. Giving due consideration to the risks and costs associated with continual improvement initiatives to ensure an adequate return on investment.
6. Establishing a robust system that allows top management to measure, monitor and manage the quality of Anmar's processes and services.

Standards of Practice

It is the policy of Anmar Metrology, Inc. to engage in good professional laboratory practices. All management shall ensure that the services provided are free from influences that could detract from or compromise the integrity of the measurements made or data provided.

It is also our policy to treat all information provided to us by our customers as confidential and proprietary to our customers. No employee is permitted to reproduce, divulge or disclose any material to any party without the expressed written consent of those who supplied the information.

It is also our policy to train our technicians to utilize accepted measurement techniques; employing reference standards, natural physical constants or ratio metric techniques to obtain absolute measurement results, which are of the highest accuracy with a minimum of uncertainty.



President of Anmar Metrology, Inc.

5.2 Customer Focus

Customer satisfaction is the paramount purpose of all company activities. Meeting the requirements and value expectations of our customers is the primary task of every employee.

Top management reviews key parameters of customer satisfaction measurements through the use of the customer feedback system.

Reference Documents:

QAP-018 Customer Satisfaction
WRK-002 Completing the Customer Survey

5.3 Quality Policy

5.3.1 Top management has established and periodically reviews the quality policy for suitability. Every employee has the responsibility of knowing and upholding this policy.

Quality Policy

Anmar Metrology is committed to meeting or exceeding our customers' expectations by providing quality services that focus on competence, communication, and timely delivery. We pledge to provide quality performance to every customer, every time. We have implemented a quality management system that provides the following:

- *Highest level of Customer Service*
- *Employee involvement, motivation and training*
- *Cost effective solutions to our customers through system efficiency*
- *Monitoring & Measuring of Quality Processes to ensure continual improvement*

5.3.2 Framework for Objectives

The quality policy provides a framework for objectives to be disseminated throughout the organization. Core objectives derived from the quality policy are:

- To always provide our customers with only the highest quality service as demonstrated by customer feedback (satisfaction surveys, complaints, and direct communications, etc.) on a continual basis.
- Provide services on time as verified through customer surveys, feedback and internal data analysis with a goal of a 1-week turnaround for calibrations.
- Provide our customers with the best value for our services as demonstrated by customer satisfaction.
- Keep open communication with our customers as part of our customer service function in order to meet or exceed our customer's requirements.
- Utilize continuous improvement concepts through the use of Internal Audits, Customer Complaints, Nonconformance/Corrective Action/Preventive Action Reports, employee and customer feedback.
- To provide a system of employee involvement, motivation and training at all levels of our service. Ensuring that all personnel are trained to a level of understanding of the quality system, which is appropriate to the individual's degree of responsibility.

5.4 Planning

5.4.1 Quality Objectives

Top management establishes measurable quality objectives that are consistent with the quality policy. Company level data is generated and then reviewed and analyzed through management meetings.

Trends in performance are tracked against the objectives of the overall business plan and actions are taken as necessary for alignment. This is accomplished routinely in the management review process.

5.4.2 Quality Management System Planning

Planning of the QMS (as evidenced by this manual) is carried out in order to meet the requirements of our customers and to satisfy our QMS. Management periodically reviews and measures key results with appropriate levels and functions of the organization to determine that the objectives are consistent with the quality policy and that objectives are achieved.

When systems change, because of continual improvement efforts and changing business needs, Anmar ensures that the integrity of the QMS is maintained. Top management must approve planned and implemented changes to the QMS.

Reference Documents:

QAP-001 Organization & Responsibilities
WRK-013 Management Review

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and Authority

An Organization Chart, Appendix C, and Responsibilities and Authorizations Chart, Appendix D, are maintained that shows the responsibility, interrelationships, and authorizations within the company. Applicable procedures will also include the responsibility and authority for select activities.

Anmar conducts activities to meet the requirements of this Quality System and to satisfy the needs of our customers and relevant agencies. Anmar is responsible of ensuring adherence to the requirements of the ISO 9001:2008, ISO/IEC 17025 and ANSI/NCSL Z540 standards.

Anmar has established policies and procedures to ensure the protection of its clients' confidential information and proprietary rights, including procedures for protecting the electronic storage and transmission of results.

All personnel who manage, perform and/or verify work are responsible for the quality of services provided by Anmar. All such personnel are authorized to identify and record problems related to services, processes, and the QMS as a whole. All staff and personnel have the responsibility to comply with documented procedures and policies that that reflect customer requirements and expectations.

All personnel have the responsibility to assure that processes, in which they are working, are in a state of control and that the tasks are completed in a responsible manner. When non-conformances are identified, the individuals that identified the problem are responsible for making the appropriate notification through designated channels controlling further processing until the problems have been corrected. All personnel are also encouraged to initiate, recommend, or provide solutions to prevent nonconformities.

5.5.1.1 Legal Responsibility

The legal name of this organization is “**ANMAR METROLOGY, INC**”. **Anmar** holds legal responsibility for its operation and is organized to operate in accordance with the requirements of ISO 9001:2008, ISO/IEC 17025 and ANSI/NCSL Z540 and to satisfy the requirements of the customer, regulatory authority, or the organization providing recognition. The Organization is responsible for providing the resources, appropriate workspace and utilities, process equipment, and supporting services to meet the requirements stated in this Quality Assurance Manual.

Reference Documents:

QAP-001 Organization & Responsibilities
QAP-009 Technician Responsibilities

5.5.2 Management Representative

The representative for the ISO programs described in the scope of this document is appointed and approved by top management and is responsible for reporting to them about the performance of the QMS and any need for improvement.

Irrespective of other duties, the Management Representative for the QMS has the main responsibility and authority for facilitating the establishment, implementation, and maintenance of the QMS processes and ensuring that the system continues to be compliant with the requirements of the applicable standards.

The Management Representative is responsible for ensuring the promotion of awareness of customer requirements throughout the organization.

5.5.3 Internal Communication

The effectiveness of the QMS processes are communicated to the various levels and functions of Anmar through the use of informal and formal meetings, QMS documentation, training, internal audits (and subsequent reporting), the corrective and preventive action systems, the document control system, and management review meetings.

5.6 Management Review

5.6.1 Management reviews occur on a regular basis to ensure that the QMS continues to be suitable, adequate, and effective. Action items resulting from these reviews are documented in the form of a corrective action (CAR) and logged into that system for planning, implementation and verification of effectiveness.

The Quality Assurance Manager is responsible for documenting and maintaining any records from these meetings, as well as verification of any actions to be taken.

Management review records are maintained for a minimum of five years beginning from the date the record was prepared. The disposition and maintenance of management review records is the responsibility of the QA Manager.

Management Review Records include as a minimum:

1. Attendance
2. Minutes from meeting
3. Relevant supporting documentation
4. Action items identified to provide the path for corrective action and follow-up.
5. Results of the measurement of Metrics

5.6.2 Review inputs are as follows:

As a minimum, the following topics will be reviewed.

- a) Results of customer and internal audits
- b) Results of Customer Satisfaction Survey and scorecard
- c) Process performance
- d) Status of corrective and preventive actions
- e) Follow-up status on previous action items
- f) Changes that could affect the management system
- g) Recommendations for improvements to the system

5.6.3 Review outputs are as follows:

The output of the management review includes minutes of any discussions, decisions, and actions related to any part of the process including but not limited to the following:

- a) Improvements to the QMS
- b) Improvements to the processes
- c) Improvements to services related to customer requirements
- d) Resources needed

Reference Documents:

WRK-013 Management Review

6.0 Resource Management

6.1 Provision of Resources

Resource management is the responsibility of each department manager. Resources may include personnel, suppliers, information sources, materials, equipment, and infrastructure. Top management determines the level of manpower and resources needed.

Anmar provides adequate resources and trained personnel to provide support for sales, contract review, inspection of incoming equipment, technical service expertise, customer service expertise, verification of test results, and handling, packaging and shipping. The Quality Assurance Manager is responsible for Internal Audits of the quality system and its procedural implementation. The Laboratory Manager is responsible for internal technical activities.

Anmar Metrology, Inc. is an independent organization. Its personnel exercise impartial technical judgments and do not engage in any activities that might compromise integrity related to testing or calibration activities. No employee is subjected to undue commercial, financial or personal pressures, which might influence their technical judgment or be a conflict of interest.

Departments are managed by responsible personnel in such a manner that their independence of judgment and integrity are maintained at all times.

6.2 Human Resources

6.2.1 General

Competency requirements for personnel are defined either in applicable procedures, and/or in specific job descriptions. The individual departments are responsible for evaluation of the individual's education, skills, experience, or ability to complete a training program to accomplish the task assigned.

6.2.2 Competency, Awareness and Training

Training is a key element in the overall QMS. The system is designed to provide Anmar employees with the necessary skills and knowledge to perform tasks in a highly technical environment.

Department managers are responsible for ensuring the competence of all personnel operating specific equipment, performing tests and/or calibrations, and/or processing data. The QA Manager is responsible for ensuring the competency of personnel evaluating results and approving test reports and calibration certificates.

Training requirements have been defined for each department/function that performs work that can have an effect on the quality of the QMS process. The quality assurance department is responsible for maintaining records of personnel job skills including equipment and techniques as appropriate, training performed and the method used to measure the training's effectiveness.

Department managers must ensure that personnel are aware of the relevance and importance of their activities to the achievement of the quality objectives. A Training Matrix is utilized for each job function at Anmar Metrology, Inc. This allows easy identification of training needs for each job function and to verify that training is current.

Technical Qualifications

All trainees work under the supervision of qualified personnel. All work performed by the trainee is approved by qualified personnel until the trainee is released from "Trainee Status" and, in the case of technicians, issued their own Tech ID Stamp.

During the initial training period, three (3) month minimum, trainees are instructed in the following:

- Company Policies
- Quality Policies
- Quality Assurance Procedures
- Work Instructions

Qualified personnel responsible for the inspection of test reports and test data have relevant knowledge of the technology used for the testing or the use or intended usage, and/or the defects or degradations that may occur.

The personnel shall also have knowledge of the general requirements expressed in the legislation of standards; and an understanding of the significance of deviations found in regard to the normal use of items concerned.

Training Goals and Needs Identification

Training programs are utilized for Quality Assurance, Metrology Technicians and other personnel who have an effect upon or who are responsible for the determination of quality.

Tools implemented for training programs include:

- Quality Assurance Manual
- Quality Assurance Procedures
- Company Policies
- Calibration Procedures and Work Instructions
- Training videos & CD ROMS
- Participation in recognized outside organizational training programs.
- Proficiency Testing
- MetNav Training Matrix (Provides all the training required for each job function)

These programs include sufficient training to ensure personnel proficiency and a means of determining proficiency. Training needs are periodically assessed to determine any requirements for additional training, such as quality system audits, new or improved capabilities and employee reviews.

Reference Documents:

QAP-003 Training, Qualification & Certification

6.3 Infrastructure

Facilities and IT provide and maintain the appropriate infrastructure necessary to achieve service realization. The infrastructure includes but is not limited to:

- Buildings, workspaces, and associated utilities are identified and appropriate flows established to maximize efficiency.
- Communications tools.
- Equipment, both hardware and software.
- All support services necessary (i.e. transport, communication).
- Electronic network with information sharing capabilities.

6.4 Work Environment

Anmar's facilities are maintained appropriately to achieve conformity of the services to stated specifications. Anmar's management ensures that the appropriate human and physical factors of the work environment are considered and accommodated. Consideration of such factors includes but is not limited to health and safety concerns, work methods, handling methods, work flow efficiency, compliance to standards, and ambient working conditions.

Laboratory Facilities

Procedures and instructions are established to ensure that services are performed in an environment that does not adversely affect the validity of test measurements. Electrostatic Sensitive Devices (ESD) are received and handled at a designated ESD Work Station. Procedures have been established to assure that qualified personnel are trained in methods to control ESD.

Environmental Monitoring

Anmar monitors, controls and electronically records the environmental conditions where quality-affecting work is being performed. Environmental data resulting from conditions in the Electronic and Dimensional Lab are stored and maintained by the QA Department.

When the environment falls outside of pre-specified ranges work is immediately halted until the conditions are within the required specifications.

For on-site calibrations at a customer's facility, the ambient temperature & humidity is checked and logged on the On-Site Log Sheet. Calibrations performed at a customer's facility shall be verified to be within the specified environmental conditions to ensure that the results of the calibration are not invalidated.

Cross Contamination

Equipment is segregated by status and type. Out-of-service equipment is removed from the working environment, conflicting activities are clearly defined, and incompatible processes are separated.

Laboratory Access

Access to and uses of areas affecting the quality of the tests and/or calibrations are controlled as required to the extent of the work being performed.

Housekeeping

Anmar practices good housekeeping in the laboratory. The areas where quality-affecting work is being performed are cleaned as needed. All equipment, accessories, manuals, fixtures etc. are returned to their appropriate area.

Reference Documents:

QAP-019 Safety
WRK-005 Handling of ESD Sensitive Devices

7.0 Service Realization

7.1 Planning of Service Realization

Information to develop a specific service may be driven from internal projections of the market needs or from specific customer needs and expectations. In the event that a specific customer expectation is incorporated into the final service design, Anmar will maintain a one-on-one communications with the customer to insure that the customer's needs, compliance to specifications and acceptance criteria, are included in all phases of the service realization process. The process starts with a business plan that addresses resources needed, the expected time schedules, projected cost of development, and any special equipment or process requirements.

In planning service realization, the organization determines:

- The quality objectives for each service:
 - To meet the requirements of proposed specifications
 - To meet the schedules defined in the business plan
 - To meet the cost projections as defined in the business plan
 - To meet customer technical specifications in the event the service was designed for a unique customer
- The processes, documentation, and resources required that are specific to the service
- The required verifications, validation, measurement, monitors specific to the service and defined acceptance criteria
- Records that are needed to provide evidence that the realization process and resulting service meets requirements.

Reference Documents:

WRK-013 Management Review

7.2 Customer-Related Processes

7.2.1 Determination of Requirements Related to Service

- a) The sales department provides price quotes for services upon requests from customers and potential customers.
- b) Upon receipt of tenders from customers, the managers of all departments at Anmar review the customer requirements before acceptance of the work. The review of customer requirements includes a review of any regulatory requirements related to the service.
- c) During new service development, customers' specific requirements such as parameters, technical inputs, application ideas, or any special requirements are incorporated into the appropriate specifications and data requirements as negotiated.

7.2.2 Review of requirements related to services

Anmar's managers review all submissions of tenders, or the acceptance of a contract or purchase order to ensure that:

- a) The requirements are adequately defined and documented. When no written statement is available for an order by verbal means, Anmar shall ensure that the order requirements are agreed to and documented prior to their acceptance.
- b) Any discrepancies between the contract and order requirements and those in the tender are resolved with the customer.
- c) Anmar has the capability, resources, and the appropriate test and/or calibration methods to meet the contract or order requirements.
- d) Accepted special requirements are documented, tracked, and made available through the use of Anmar's internal tracking software.
- e) When customer requirements change, Anmar ensures that relevant documents are reviewed and updated, and that the revised requirements are communicated to all staff.
- f) Records of the requirements review and approval are maintained.

Records of reviews related to services are documented and all significant changes related to customer requirements, are identified. Records of any pertinent discussions with customers, relating to their requirements or the results of the work during the period of execution of the contract are maintained.

For review of routine and other simple tasks, the date and identification (e.g., initials) of the person in the laboratory responsible for carrying out the contracted work are considered adequate. For repetitive routine tasks, the review needs to be made at the initial review stage.

7.2.2.2 Review of Subcontracted Work

Subcontractors are required to meet customer requirements. Prior to the release of customer owned equipment to subcontractors, evidence of a review of the subcontractor's ability to meet the customers' requirements is documented.

7.2.3 Customer communication

Anmar has determined and implemented effective arrangements to ensure good customer communication in relation to the following:

- Requests for service information, technical information, specifications, etc.
- Inquiries, contracts, or order handling or status, including amendments
- Customer feedback, including customer complaints.

Anmar maintains a system for documenting customer complaints through the utilization of documents describing the nature of the complaint, initiator, forwarding requirements, resolution, and follow-up.

When a complaint impacts a quality compliance issue, the Customer Complaint is utilized to initiate a Nonconformance Report and sent to corrective action if the QA Manager deems necessary.

The customer is notified verbally or in writing as to the resolution of the complaint. Anmar considers the Customer Complaint System an important tool for identifying areas where improvements to our QMS can be accomplished.

Customer specific requirements are identified and agreed to during the contract review and contract acceptance process.

Reference Document:

QAP-004 Contract Review

QAP-018 Customer Satisfaction

7.3 Design and Development – Exclusion - Anmar does not manufacturer product.

7.4 Purchasing

7.4.1 Purchasing process

Procedures are established to ensure that measuring & test equipment (M&TE), parts, materials, and services, whether purchased directly or through contractors or subcontractors, conform to specified requirements.

Suppliers are selected on their ability to meet quality and service requirements, their commitment to continuous improvement, and cost competitiveness. The selection is based on qualification, review of the supplier's demonstrated capability and performance, and quotation analysis.

Materials and services that can have an effect on the quality of services will be purchased from subcontractors/vendors that are approved suppliers. Anmar advises customers when subcontracting is required and gains their approval before subcontracting services. Approvals are documented and maintained in customer files. Anmar is responsible to the customer for the subcontractor's work, except in the case where the customer or a regulatory authority specifies which subcontractor is to be used.

A register of all approved subcontractors used for tests and/or calibrations shall be maintained. Records of the evidence of their compliance to ISO 9001:2008, ANSI/NCSL Z540 and/or ISO/IEC 17025 shall be required. In cases where subcontractors do not meet the requirements of ISO 9001:2008, ANSI/NCSL Z540 and/or ISO/IEC 17025, but have been approved by the customer, records shall also be maintained to record the general information of the subcontractor including their capabilities and compliance to any standard.

Reference Documents:

QAP-006 Procurement

QAP-007 Supplier Qualification

WRK-003 Vendor Performance Rating

7.4.2 Purchasing information

Purchase orders are issued in accordance with approved purchasing procedures. Service requirements are forwarded to qualified subcontractors who are responsible for the review and approval of services required.

Purchasing requirements may extend to include (where applicable) quality system requirements. These requirements may be stated in the purchase order or contract.

Reference Documents:

QAP-006 Procurement

7.4.3 Verification of Purchased Parts, Materials and Services

Management considers the amount of control exercised at the subcontractor's premises, service history of quality, and the impact to end customers when establishing the level of verification required.

Anmar purchases parts and materials to perform repair and general maintenance services as part of our primary process. These parts and materials are inspected for damage upon receipt and verified as operational during the service process. Conformance is then confirmed during final test.

Calibration services are procured from approved and qualified laboratories. Internal procedures define verification requirements of critical parameters and conditions.

Reference Documents:

QAP-006 Procurement

QAP-007 Supplier Qualification

WRK-006 Handling of Vendor Parts

WRK-020 Handling of Outside Vendor M&TE

7.5 Production and Service Provision

7.5.1 Control of production and service provision

7.5.1.1 General Controls

Documented work instructions include the requirements for in-process and final inspections. All employees are responsible for ensuring that these inspections/tests are carried out as specified. These instructions are readily available through indexed filings and in electronic format on the shared drive of the server.

7.5.1.2 Technical Requirements

Many factors determine the correctness and reliability of the calibrations performed by Anmar. These factors include contributions from:

- Human Factors
- Accommodation and environmental conditions
- Calibration methods and method validation
- Equipment
- Measurement Uncertainty
- Handling of calibration items

The extent to which the factors contribute to the total uncertainty of measurement differs considerably between (types of) calibrations. Anmar takes into account all of these factors in developing calibration methods and procedures, in the training and qualifications of personnel, and in the selection and calibration of the equipment utilized.

The collective uncertainty of the measurement standards used shall not exceed 25% of the acceptable tolerance (e.g., manufacturer's specification) for each characteristic of the measuring and test equipment being calibrated or verified, where possible. When this cannot be met, the customer is notified prior to performing the calibration or verification service and documented on the Calibration Certificate.

7.5.1.3 Service Controls/Inspections

1. Service operations are controlled to ensure applicable internal and external required standards of quality are met or exceeded. In-process and final inspection procedures are identified in the process flow and are defined in internal work instructions for each service area. Acceptance criteria are established for all testing and inspection activities used both internally and by subcontractors.
2. All operations required to test and monitor our services have appropriate work instructions and designated flows that that define process and inspection requirements. These instructions contain sufficient detail to ensure quality levels are maintained. All applicable personnel are responsible for ensuring that the current work instructions are available.
3. Final testing is performed in accordance with the applicable process flow for each service. Test parameters and conditions are contained in the applicable procedures.
4. Software control is the responsibility of the department that manages, administers, and/or uses the software. Procedures used to govern critical software are documented and controlled.
5. Services are carried out under environmentally controlled and specified conditions.
6. Routine maintenance schedules are followed to ensure continued suitability of equipment.
7. Critical processes are identified and monitored. Data is collected and is analyzed to evaluate the effectiveness of new and existing processes and services.

8. Critical equipment and processes are qualified prior to use.

7.5.1.4 Scheduling

Purchase orders are reviewed for customer requirements pertaining to turnaround time and scheduling of services. Methods are employed to communicate the requirements to respective contractors and monitor the status through out the service cycle.

7.5.1.5 Service to the Customer

Anmar offers our customer's the right to verify that product/services conform to their specified contractual requirements. The customer may monitor the performance of the laboratory in relation to the work performed as contractually required. In these cases, Anmar shall ensure confidentiality to our clients.

Reference Documents:

QAP-008	Inspection
QAP-011	Measuring & Test Equipment
QAP-012	Inspection & Test Status Control

7.5.2 Validation of Processes for Production and Service Provision

7.5.2.1 Calibration Methods and Method Validation

General

Anmar uses appropriate methods and provides procedures for all calibrations, including handling, transport, storage and preparation of items to be calibrated and where appropriate, the estimation of the measurement uncertainty as well as statistical techniques for analysis of calibration data.

Anmar has procedures and instructions on the use and operation of all relevant equipment, and on the handling and preparation of items for calibration, where the absence of such instructions could jeopardize the calibration results.

All instructions, standards and manuals are kept current and readily available to applicable personnel. Manufacturers' manuals are maintained and inventoried.

Availability of the most current manuals can sometimes be prohibitive. In these cases, we use the most current revision on hand and document the type (Manufacturer, Navair, Customer Supplied, etc.) on the certificate of calibration.

Deviations from calibration methods only occur if the deviation has been documented on the certificate or in a report. It must be technically justified and authorized by the Quality Assurance Manager following approval, in writing, by the customer.

7.5.2.2 Selection of Methods

Anmar uses calibration methods, which meets or exceeds the needs of the client and are appropriate for the calibrations undertaken. Methods published in international, regional or national standards are utilized. Anmar uses the latest edition of standards, whenever possible and appropriate. When necessary, the standards may be supplemented with additional details to ensure consistent application.

Where the customer has proposed a method to be used that Anmar has deemed to be inappropriate or out of date, the customer shall be informed.

Where the customer does not specify the method to be used, Anmar selects the appropriate methods that have either been published in international, regional or national standards, or by reputable technical organizations, or in relevant texts or journals, or as specified by the manufacturer of the equipment. The laboratory confirms any method chosen before use, and if the standard method changes, the confirmation shall be repeated.

7.5.2.3 Laboratory-Developed Methods

Introduction of calibration methods developed by Anmar for its own use is a planned activity by technically qualified personnel equipped with adequate resources. If plans for development of methods change, all personnel involved are immediately informed of the changes. Only current revisions of internally developed methods shall be available.

7.5.2.4 Non-Standard Methods

When it is necessary to use methods not covered by standard methods, these shall be subject to agreement with the customer and include a clear specification of the customer's requirements and the purpose of the calibration. The method shall be validated appropriately before use.

For new test and/or calibration methods, procedures should be developed prior to the tests and/or calibration being performed and should contain at least the following:

- Appropriate identification
- Scope
- Description of the type of item to be tested or calibrated
- Parameters or quantities and ranges to be determined
- Apparatus and equipment, including technical performance requirements
- Reference standards and reference materials required
- Environmental conditions required and any stabilization period needed
- Description of the procedure, including;
 - Affixing of identification marks, handling, transporting, storing and preparation of items
 - Checks to be made before the work is started
 - Checks that the equipment is working properly and, where required, calibration and adjustment of the equipment before each use
 - The method of recording the observations and results
 - Any safety measures to be observed
- Criteria and/or requirements for approval/rejection
- Data to be recorded and method of analysis and presentation
- The uncertainty or the procedure for estimating uncertainty

7.5.2.5 Validation of Methods

Anmar validates any service processes where the resulting output cannot be verified by subsequent measurement or monitoring. The validation of non-standard methods, laboratory-designed/developed methods, and standard methods used outside of their intended scope, and amplifications and modifications of standard methods to confirm that the methods are fit for the intended use. The validation shall be as extensive as is necessary to meet the needs of the given application or field of application.

The laboratory shall record the results obtained, the procedure used for the validation, and a statement as to whether the method is fit for the intended use. The techniques used for the determination of the performance of a method should be one of, or a combination of, the following:

- Calibration using reference standards or reference materials
- Comparison of results achieved with other methods
- Interlaboratory comparisons
- Systematic assessment of the factors influencing the result
- Assessment of the uncertainty of the results based on scientific understanding of the theoretical principles of the method and practical experience

The validation process shall be defined to include the following;

- 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.
- Re-Validation

7.5.2.6 Estimation of Uncertainty of Measurement

Anmar has a procedure to calculate its estimation of the uncertainty of measurement. These calculations are available for specified ranges and for all measurements within its scope.

When estimating the uncertainty of measurement, all uncertainty components, which are significant to the measurand, shall be considered for calculations, using the basic concepts as described in the GUM (Guide to the Expression of Uncertainty in Measurement). Approved and validated software may be utilized to facilitate this process.

7.5.3 Identification and Traceability

7.5.3.1 General

The identification and traceability system provides the means of tracking all items through the service processes.

7.5.3.2 Identification

Unique work order numbers are assigned for each item serviced and work status tags are issued and affixed to them. These tags serve as a traveler and remain in place through delivery to ensure appropriate identification of owner, date received, service required and accessories supplied.

Customer's equipment is uniquely identified by an Asset Number to provide a unique tracking/reference number to ensure that items are clearly identified to prevent confusion physically or when referred to in records or other documents.

7.5.3.3 Traceability

The traveler and/or electronic record are the primary basis of traceability. The electronic record details the status of each item through the service cycle.

Reference Documents:

QAP-008 Inspection
QAP-012 Inspection & Test Status Control

7.5.4 Customer Property

7.5.4.1 Care of customer owned property

Anmar exercises the appropriate care in the handling of customer owned equipment while it is under our control. We identify, verify, protect and safeguard it to the best of our ability. In the event that any customer owned equipment is lost or damaged while under our control, we shall report it to the customer, make restitution, and document it.

Reference Documents:

QAP-015 Handling, Storage, Cleaning, Preservation, Packaging, Shipping & Delivery
QAP-017 Audits
WRK-012 Delivery

7.5.5 Preservation

7.5.5.1 General

Procedures have been implemented for all items under our control. Items are stored and handled to preserve the product to maintain conformity to the requirements. Such protection is also extended to items being delivered, which is packaged appropriately to preserve conformity during delivery. Procedures shall address the following:

7.5.5.2 Handling, Storage, and Preservation

- a) Handling of items at various process stages is defined in specific work instructions for each area.
- b) An ESD program has been implemented that defines approved workstation and handling requirements to prevent degradation of device performance.
- c) Temperature and humidity limits are defined to for critical process and storage areas and are monitored accordingly.
- d) Out of service equipment is removed from the process and segregated to scrap locations.

7.5.5.3 Packing and Delivery

Items are packed in appropriate containers and controls are utilized to ensure safe delivery, such as antistatic bags, bubble wrap, tie downs, foam cushions, strapping tape, and secured delivery vehicles.

7.5.5.4 Storage and Inventory

Shelf life is determined for all products and materials in stock that affect the quality of work performed and services rendered. Controls are in place to ensure the removal of any product or material that has exceeded its shelf life to prevent their use.

Reference Documents:

QAP-015	Handling, Storage, Cleaning, Preservation, Packaging, Shipping & Delivery
WRK-005	Handling of ESD Sensitive Devices
WRK-008	Equipment Pick-up
WRK-012	Delivery

7.6 Control of Monitoring and Measuring Equipment

7.6.1 Equipment used to determine the conformance of services is identified with a unique equipment number, tracked, and calibrated at regular intervals. Written procedures outline the overall system and define requirements for specific equipment calibrations. All calibrations are either performed internally or by an approved supplier or subcontractor.

Equipment is clearly labeled as to its calibration status, calibration due date, and the responsible calibration personnel. A recall system provides advanced notification for equipment due for calibrations as well as overdue notices. Out of tolerance events are documented and affected items are identified and dispositioned accordingly.

Equipment is calibrated at periodic intervals that are determined on the manufacturer recommendation, historical data, and/or statistical studies. Equipment is calibrated against certified standards traceable to nationally recognized standards (NIST).

Anmar assures that the laboratory is furnished with Measuring & Test Equipment (M&TE) and software that has the capability of achieving the accuracy of its intended use and meets the relative specifications for the calibrations concerned. To ensure the requirements of ISO/IEC 17025, procedures are to address the following:

- Evaluation of specified requirements (contract review, capability review, technical ability, etc.)
- Procurement
- Identification
- Calibration
- Indicating Status of all M&TE
- Calibration and Maintenance Records
- Assessments and documentation of M&TE found out-of-calibration
- Environmental Conditions
- Handling, Preservation and Storage
- Operational verifications
- Intermediate checks (where applicable)
- Safeguards
- Training
- Manufacturer Instructions

Records are maintained for each item of equipment and its software significant to the calibrations performed.

7.6.2 Changing Calibration Intervals

Calibration intervals may be changed after reviewing previous test results or when it is suspected that any M&TE has become out of calibration. QAP-011 defines the method used to determine the adequacy of a current calibration interval and interval change guidelines

7.6.3 Intermediate Checks

Anmar's calibration system software has intermediate check capabilities. Test equipment that requires ISO/IEC 17025 accreditation is controlled through this process. In addition, calibration standards are verified during their use. If a unit is suspected of being out of tolerance, the standard is verified to be working properly prior to determining the need for an adjustment to any affected M&TE.

7.6.4 Calibration Results

Anmar maintains written procedures that describe the processes for the monitoring of the validity of calibrations being performed. Data shall be collected from the monitoring function and used for trending as it applies to the quality of the results. The methods used for monitoring shall be appropriate for the type and volume of work undertaken.

Reporting of calibration results

The results of each test/calibrations that Anmar performs are reported accurately, clearly, unambiguously and objectively, and in accordance with any specific instructions in the test/calibration method/procedure.

The results are reported on a Calibration Certificate or a data test report. The information contained is as required by the client and as necessary for the interpretation of the test/calibration results and all information required by the method used.

Reference Documents:

QAP-011 Measuring & Test Equipment

8.0 Measurements, Analysis and Improvement

8.1 General

Anmar plans and implements monitoring and analysis systems to demonstrate the conformity of our services and to ensure the conformity and effectiveness of the Anmar's QMS.

Data is analyzed using statistical and other techniques to guarantee conformity to process and service requirements.

Management routinely reviews the quality management systems for improvement opportunities and to evaluate the effectiveness of the QMS.

8.2 Monitoring and Measurement

8.2.1 Customer satisfaction

Anmar conducts periodic surveys of customers to solicit information regarding the customers' level of satisfaction or dissatisfaction with Anmar's services. Management evaluates the results of the surveys, in conjunction with customer scorecards, for continual improvement opportunities.

Reference Documents:

QAP-018	Customer Satisfaction
WRK-002	Completing the Customer Survey
WRK-013	Management Review

8.2.2 Internal Audit

8.2.2.1 General

Internal audits, which are planned and scheduled, are used to validate that our QMS and processes have been implemented and maintained. These audits determine whether the QMS conforms to the requirements of ISO 9001:2008.

Internal auditors are assigned the task of conducting and administration of the internal audit function. Auditors trained and certified in audit disciplines, ISO 9001:2008, customer specific requirements, and area process specification interpretations, perform all audits. The audit team is independent of the area audited.

When deviations are identified during the audit process, responsible parties address these deviations with root cause analysis and corrective/preventive action activities. Managers responsible for the area being audited are responsible for taking timely actions in response to the audit finding.

The Quality Assurance Manager is responsible for follow-up audits on all responses to ensure overall effectiveness of the corrective/preventive action and continuous improvement plans.

8.2.2.2 Audit Plan

The standard internal audit plan is developed yearly and includes all quality management related processes.

8.2.2.3 Internal Auditor Qualification

Anmar's standard practice is for auditors to be trained and certified to the standards and discipline assigned for audit.

Reference Documents:

QAP-017	Audits
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8.2.3 Monitoring and Measurement of Processes

Monitors/metrics for processes that may affect the QMS are established and results are reviewed. When planned results are not achieved, correction and corrective action shall be taken, as appropriate.

Software control is the responsibility of the department that manages, administers, and/or uses the software. procedures used to govern critical software are documented.

Services are carried out under environmentally controlled conditions as specified in internal documentation to ensure processing and testing conditions are repeatable.

Statistical methods are used to evaluate new and existing processes and services. Critical equipment and processes are qualified prior to use.

The competency level of all personnel performing tasks that could impact the overall management systems are routinely reviewed for competency and effectiveness in achieving goals and objectives that support the overall QMS.

Reference Documents:

QAP-003 Training, Qualification & Certification
QAP-011 Measuring & Test Equipment
WRK-013 Management Review

8.2.4 Monitoring and Measurement of Services

Anmar maintains internal documented work instructions that include requirements for in process/final inspections. All personnel have the responsibility to ensure these tests/inspections are carried out as specified. Specially trained and qualified personnel carry out inspection and testing activities.

Inspection and test requirements are clearly defined to subcontractors. The Quality Assurance Manager reviews any resulting records and data.

Managers routinely review final inspection/test results. Results that fall below expectations are evaluated prior to release for shipment. Corrective action is initiated as appropriate. No items are shipped until all associated inspections and tests have been satisfactorily completed.

Reference Documents:

QAP-003 Training, Qualification & Certification
QAP-008 Inspection
QAP-012 Inspection & Test Status Control

8.3 Control of Nonconforming Service

Procedures are written to address nonconforming services and activities performed by Anmar. Specifically, any nonconformance arising from calibration or repair occurring from quality deficiencies as related to the test equipment used, procedure used, or technical performance.

Nonconformance may arise as related to:

- Test Equipment
- Documentation
- Procedural or Technical Performance
- Defective Parts and Materials
- Communication
- Service

Coding of Nonconformance

- 1) Major: A major coding on any Nonconformance Report results in an automatic and immediate Corrective & Preventive Action Report being issued. This primarily shows that a quality-affecting nonconformance has occurred.
- 2) Minor: A minor coding on any Nonconformance Report may result in a Corrective & Preventive Action Report being issued. While a nonconformance has occurred, it may not be a quality-affecting nonconformance.

When an Anmar standard or process is found to be out of tolerance, the appropriate manager performs an investigation to determine the extent of the out of tolerance condition and any impact on services performed since the last verifiable in tolerance condition. All affected customers are notified and advised as to the extent of the problem.

Customer owned equipment that cannot be brought into calibration is handled by contacting the customer, describing the limitations, agreeing to limited use if applicable, or returning the item with an evaluation report describing the nonconformance to specifications.

Reference Documents:

QAP-013 Nonconformances

8.4 Analysis of Data

The organization collects and evaluates appropriate data to demonstrate the suitability and effectiveness of the QMS and to evaluate where continual improvement of the effectiveness of the QMS can be made.

Data analyzed includes, but is not limited to the following:

- Customer satisfaction data
- Process monitoring data
- Supplier performance data
- Sales data
- Turnaround time

8.4.1 Analysis and Use of Data

Data is reviewed and trends are compared with progress towards objectives and benchmarks.

Reference Documents:

WRK-013 Management Review

8.5 Improvement

8.5.1 Continual improvement

The organization continually improves the effectiveness of the quality management systems and resulting services through the deployment of the quality policy, quality objectives, review of audit results (from both internal and external resources), analysis of services through management review, process control, customer satisfaction data, corrective and preventive actions, and other applicable sources of data.

Anmar is dedicated to the practice of continual improvement in every aspect of our business objective.

Reference Documents:

QAM-001 Quality Assurance Manual
WRK-013 Management Review

8.5.2 Corrective action

The quality system provides an effective corrective action system that takes actions to eliminate the causes of nonconformities in order to prevent recurrence. The extent of the corrective action is commensurate with the type of problem encountered.

Analysis of discrepancies, process data, customer feedback, and/or individual's recognition of an ongoing problem may result in a corrective action request and subsequent corrective action resolution. Causes are determined, actions are taken, and records are kept per internal documented procedures.

Corrective actions may result from the following:

1. Internal feedback
2. Customer feedback/complaints
3. Internal/external audit results

Monitoring of Corrective Actions

Corrective actions are followed-up by the Quality Assurance Manager, or designated representative, to verify the implementation of the action(s) has been completed and is effective.

Additional Audits

Any changes to documented procedures or policies as a result of a Corrective & Preventive Action shall be implemented and documented. An additional internal audit following the implementation of the Corrective Action shall be executed in any cases where serious quality non-conformances may have occurred.

Reference Documents:

QAP-014 Corrective Action

8.5.3 Preventive action

The Anmar management system takes preventive action to eliminate the causes of potential nonconformities in order to prevent their occurrence. Anmar uses risk analysis activities, lessons learned from services or processes that are similar to known corrective action implementation, etc.

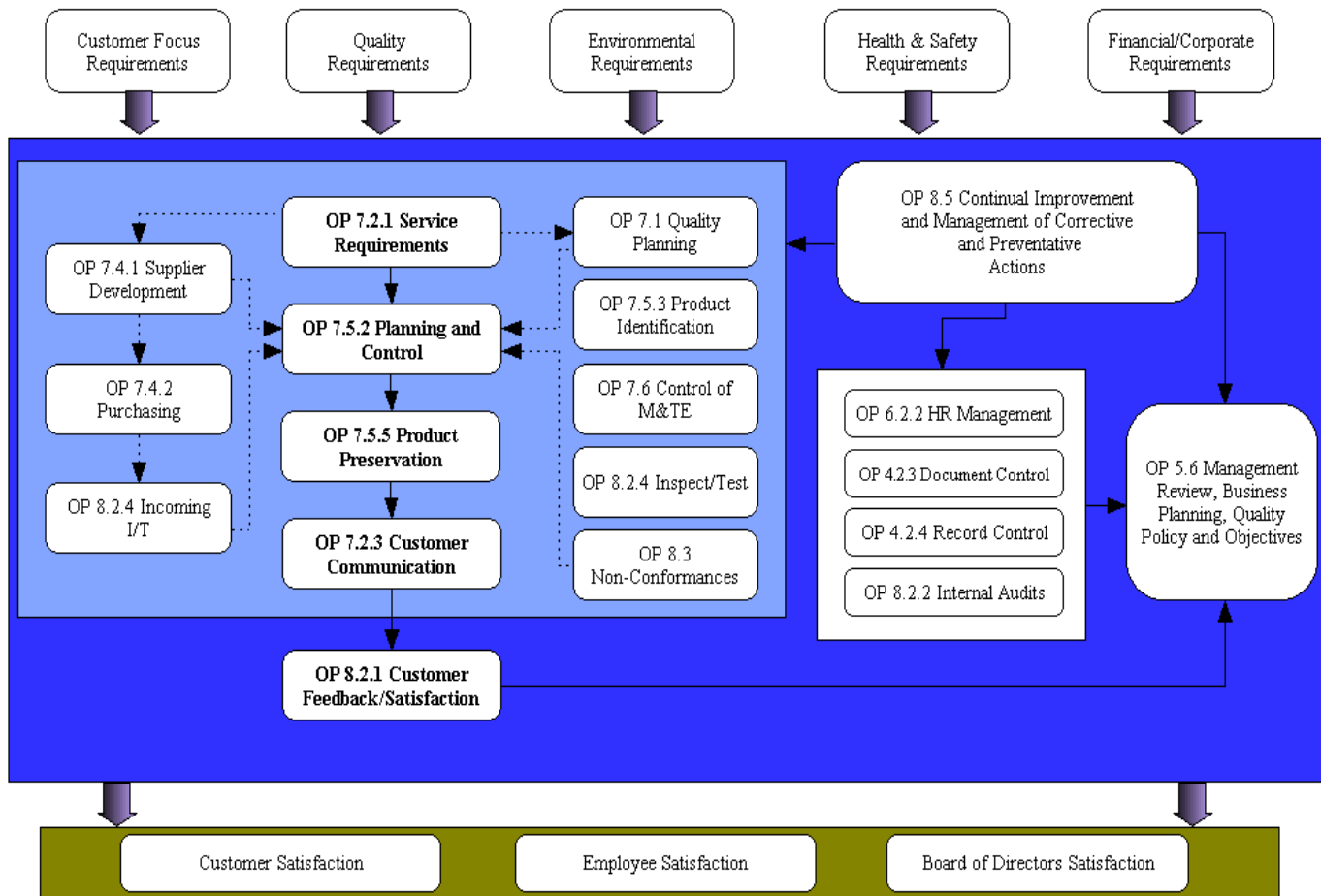
In order to properly address preventive action, the use of appropriate sources of information shall be utilized to determine the best course of action to prevent both occurrence and recurrence of non-conformances. Anmar uses sources of information (audit results, customer complaints, data analysis, etc.) to determine the steps needed to effectively deal with the nonconformance.

Reference Documents:

QAP-021 Preventive Action

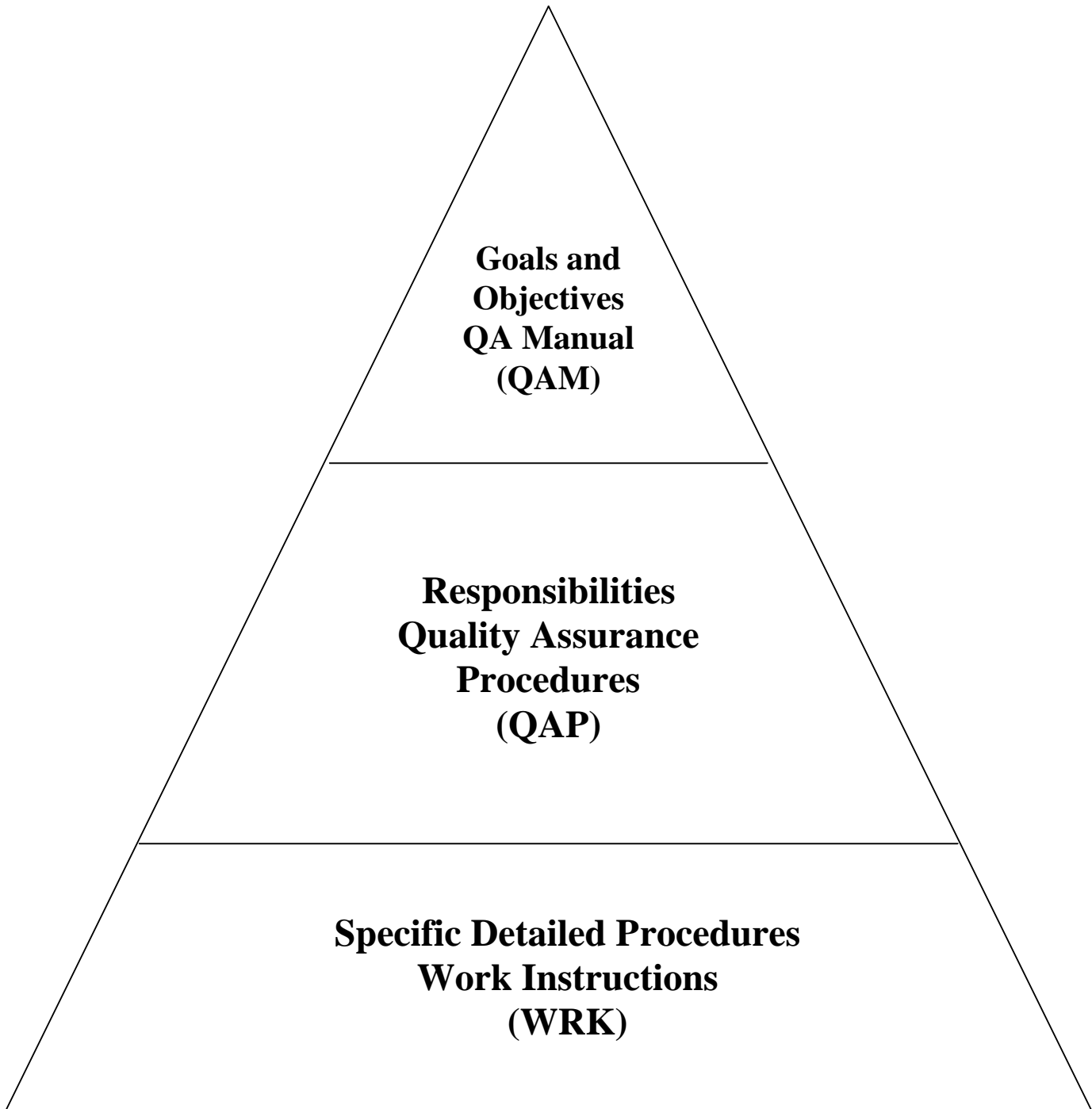
QMS Process Interactions (Appendix A)

Overall QMS Process Flow

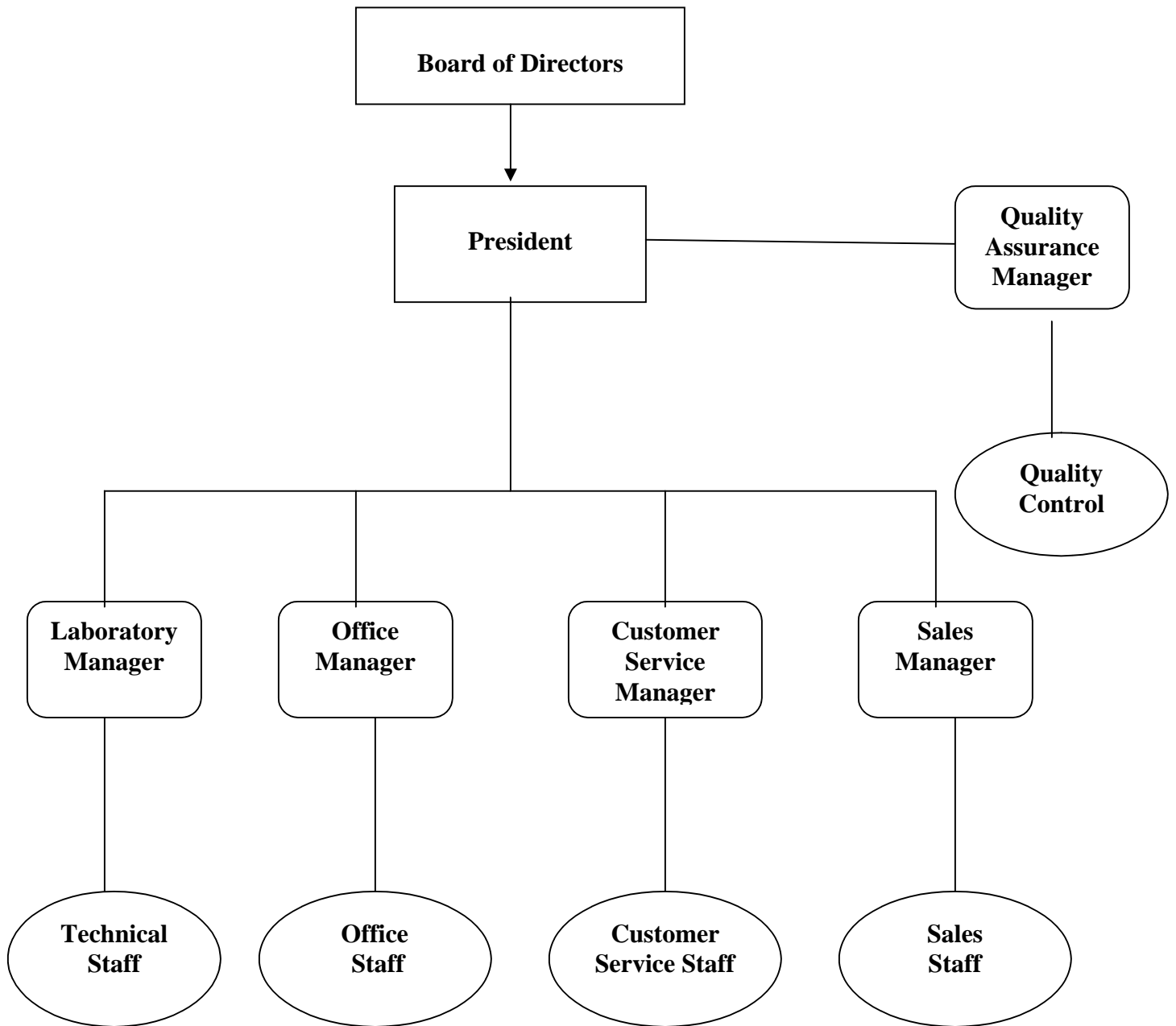


Note: Typical Customer Oriented Processes (COPs) are identified in BOLD
 Typical Support Oriented (SOPs) are in Light Blue Typical Management Oriented (MOPs) are in Dark Area

Quality System Model (Appendix B)



Organizational Structure Chart (Appendix C)



Responsibility and Authority Chart (Appendix D)

Responsible Personnel	Responsibility	Authority
Top Management	<ul style="list-style-type: none"> • Define Policy and Objectives • Define Responsibility and Authority • Provide Adequate Resources to accomplish QMS objectives • Conduct Management Reviews • Appoint Management Representative for ISO 9001 	<ul style="list-style-type: none"> • Take Actions to ensure the QMS is maintained to improve company performance.
ISO 9001 Management Representative	<ul style="list-style-type: none"> • Ensure ISO 9001 and QMS requirements are implemented and maintained • Present QMS updates to Top Management through management meetings 	<ul style="list-style-type: none"> • Recommend and implement changes to the QAM and Quality Policy.
Internal Quality/QMS Auditors	<ul style="list-style-type: none"> • Perform Audits on the QMS as per ISO 9001 • Report Results • Monitor Corrective Actions 	<ul style="list-style-type: none"> • Take appropriate action to audit discrepancies
Managers	<ul style="list-style-type: none"> • Set specifications for processes to achieve objectives and targets • Develop and upgrade processes considering quality performance • Ensure that Anmar Metrology's objectives are implemented, monitored, and actions taken when needed • Provide direction for Processes • Documenting, implementing and maintaining a system to assure and verify compliance with the QMS • Train and empower employees to participate in the reporting of deficiencies, suggestion of improvements, and stopping processes when necessary. 	<ul style="list-style-type: none"> • Make decisions on process quality considering quality system performance Recommend/specify corrective actions • Take actions to ensure QMS standards are met • Ensure corrective actions are implemented • Shutdown processes not meeting specification
Technicians/Clerks	<ul style="list-style-type: none"> • Perform processes per approved procedures • Report discrepancies to managers/customers 	<ul style="list-style-type: none"> • Contact customers for purposes related to Anmar's services • Perform technical/clerical duties per the QMS