PRECISION MACHINE INC

Quality Commitment

Quality Management System Manual
AS9100

N&P Precision Machine, Inc.
Quality Management System Manual

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Section 1

1.1 Introduction

This quality manual defines the quality management system implemented at N&P Precision Machine, Inc. The objective of this system is continuous, permanent quality improvement to prevent defects, reduce waste, improve product quality, exceed customer expectations, and sustain a successful business.

The quality management system described herein is designed to meet various customer requirements for AS9100 based quality systems including the following specifications:

1. AS9100 Rev C
2. ISO9001:2008

N&P Precision Machine, Inc.'s President is the designated authority who is responsible for implementing as well as maintaining the quality management system.

This quality manual's purpose is to ensure our company's compliance with customer contract requirements through the application and monitoring of a structured quality management system. Internal audits and management reviews are used to monitor the effectiveness of our company's quality management system.

The entire management team along with each company employee recognizes the importance of effectively building "quality" into every product and service we provide.

1.2 Quality Policy

N&P Precision Machine, Inc. is committed to providing the highest quality service to meet and exceed all customer and regulatory requirements. This is achieved through continuous improvement of our quality management system and constant monitoring of our measurable quality objectives.

1.3 Quality Manual Logistics

APPROVAL:

Name	Title
Walter Prodan	President/Management Representative
Danny Nguyen	Vice President

CONTROL:

The Management Representative maintains the currency of the quality manual electronically.

1.4 Quality Manual Revision Record

Date	REV. Letter	Description of Change(s)	Approval Date
04.09.2012	**A**	**New Quality Manual to conform to AS9100 Rev A**	**04.09.2012**
07.26.2016	**B**	Specific exclusions 7.5.1.4 Post Delivery and Support letters A, C, D, and E. Added grinding, NDT, welding, gear cutting, and broaching to outsourced processes	**07.26.2016**

Section 2

2.1 Company Service

N&P Precision Machine, Inc. is a leader in the manufacturing industry and capabilities include:

- Close tolerance machining

Primary markets include:

- Aerospace
- Military
- Defense
- Commercial

2.2 Purpose

This quality manual describes the quality management system at N&P Precision Machine, Inc. It serves as a guide for employees whose functions affect the quality and reliability of our processes. Through adherence to the documented system, there resides the highest degree of assurance that no compromise will take place in the meeting of our customers' expectations. The quality management system is responsive to all requirements of the ISO 9001:2008 and AS9100 rev. C International Standards.

The Management Representative for the quality system has full responsibility/authority for its establishment, implementation, and maintenance. This individual has control of the quality manual and other documentation comprising the quality system, including procedures, work instructions, forms, and reference documents. In addition, the Management Representative ensures that internal quality audits are scheduled to evaluate quality-related activities and the overall effectiveness of the quality management system.

As a document itself, this quality manual is updated, as necessary, to reflect changes in the quality management system and improvements in the organization. The quality manual's purpose is to help ensure both the quality and reliability of our products, therefore any suggestions for modification to its content are welcomed.

2.3 Scope

The scope of this quality manual is a description of the capability of N&P Precision Machine, Inc.'s quality management system to meet the requirements of the ISO 9001:2008 and AS9100 rev. C Standards.

These requirements focus on achieving customer satisfaction through the prevention of non-conformances. This document addresses the manner in which this company accomplishes this through all stages of its processes.

The quality manual uses the same clause numbering system as the ISO 9001:2008 and AS9100 rev. C International Standards to provide comprehensive coverage of the requirements. The structure also allows usage as a checklist for internal auditing purposes.

Lists of applicable procedures, work instructions, forms, and reference documents are maintained electronically. These documents are numbered for easy identification with the individual clauses of the ISO 9001:2008 and AS9100 rev. C Standard to which they reference.

2.3.1 Company Scope

The scope of registration covers the quality management system for close tolerance machining of casting, forging, and solid stock components for the aerospace, military, defense, and commercial industries.

Manufacturing is the sole function of N&P Precision Machine, Inc. For this reason, this company has excluded the following sections of the standard:

- 7.3 Design and Development – N&P Precision Machine, Inc. does not manufacture or design any parts or components. All parts are manufactured to customer requirements.

- 7.5.1.4 Post Delivery Support letters A, C, D, and E – N&P Precision Machine, Inc. does not perform post-delivery support with the exception of investigation and reporting of problems with the product detected after delivery.

Section 3

Terms and Definitions

The term "product" can reference either a product or a service depending on the scope of the company.

3.1 Risk

There is potential that a negative situation or circumstance will occur.

3.2 Special Requirements

Special requirements, such as specific performance or customer requirements that are limited by this company's capabilities, must be included in the risk management process.

3.3 Critical Items

Items that have a significant effect on the performance of a product or service are considered critical items and require adequate attention to be managed. Examples of critical items include, but are not limited to, safety critical items, fracture critical items, mission critical items, and key characteristics.

3.4 Key Characteristic

A key characteristic is an attribute or feature whose alteration has a significant effect on the product or service the company provides. To ensure the proper function of the product or service, key characteristics' variation must be controlled.

*For a list of ISO 9001:2008 definitions please see section 9

Section 4

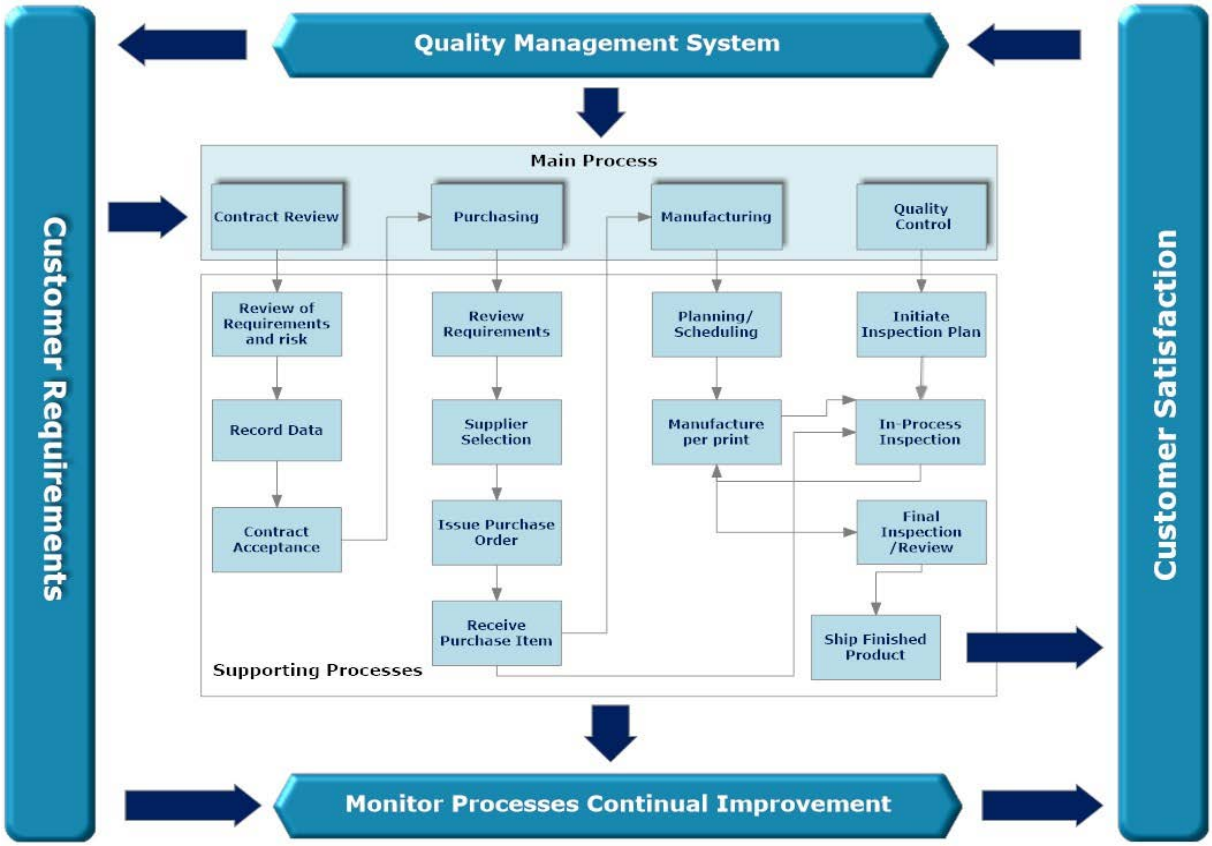
Quality Management System

4.1 General Requirements

N&P Precision Machine, Inc. has established, documented, implemented, and maintained a quality management system. Our company continually improves its effectiveness in accordance with the requirements of ISO 9001:2008 and AS9100 rev. C. **Our quality management system addresses customer requirements as well as applicable statutory and regulatory quality management system requirements.**

The company has:

- Identified the processes needed for the quality management system and the application of such throughout the organization
- Determined the sequence and interaction of these processes:



- Determined criteria/methods needed to ensure that both the operation and control of these processes are effective

- Confirmed the availability of resources and information necessary to support the operation and monitoring of these processes
- Monitored, measured (where applicable), and analyzed these processes
- Implemented actions to achieve planned results and continual improvement of these processes

These processes will be managed by N&P Precision Machine, Inc. in accordance with the requirements of ISO 9001:2008 and AS9100 rev. C.

When the company chooses to outsource any process that affects product conformity with requirements, it will ensure control over such processes. Outsourced processes include:

- Heat treating, plating, calibration services, broaching, NDT, welding, grinding, and gear cutting

4.2 Documentation Requirements

4.2.1 General

The quality management system documentation includes:

- Documented statements of a quality policy and quality objectives defined at specific levels of organization
- A quality manual consistent with the requirements of the ISO 9001:2008 and AS9100 rev. C International Standards
- Documented procedures and records required by the International Standard
- Documents needed to ensure the effective planning/control of our company's processes according to company practices, interactions, and personnel. Such documents include, but are not limited to: work instructions, workmanship standards, technical specifications, operating documents, training references, and defined competencies. Documentation exists in hard copy and/or electronic format.
- Quality records required for compliancy with the International Standard (see section 4.2.4)

N&P Precision Machine, Inc. ensures that personnel have access to quality management system documentation and are aware of relevant procedures.

4.2.2 Quality Manual

This quality manual is established to meet the requirements of the ISO 9001:2008 and AS9100 rev. C Standards and includes:

- The scope of the quality management system, with any exclusions fully identified

- A set of procedures and/or work instructions referenced as a separate set of documents
- A description of the interactions between processes of the quality management system in the form of flowcharts of written procedures

4.2.3 Control of Documents

Required documents are controlled by the electronic upload date. Any document printed from the system is considered an "uncontrolled" copy.

A documented procedure is established to define the controls needed:

- To approve documents for adequacy prior to issue
- To review and update as necessary in order to re-approve documents
- To ensure that changes and the current revision status of documents are identified
- To ensure that relevant versions of applicable documents are available at points of use
- To ensure that documents remain legible and readily identifiable
- To ensure that documents of external origin are identified and their distribution is controlled
- To prevent the unintended use of obsolete documents and to apply suitable identification to the obsolete documents if they are retained for any purpose

For further information, see associated procedure AS PR-4.2.3-01.

4.2.4 Control of Records

The company controls records that provide evidence of conformity to requirements and effective operation of the quality management system. Records are either maintained as either an electronic or hard copy. Records remain readily legible, identifiable, and retrievable.

A documented procedure has been established to define the controls needed for the identification, storage, protection, retrieval, retention, and disposition of records.

The documented procedure will define the method for controlling records that are created by and/or retained by suppliers.

For further information, see associated procedure AS PR-4.2.4-01.

Section 5

Management Responsibility

5.1 Management Commitment

Top management provides evidence of its commitment to the development and implementation of the quality management system and the continuous improvement of its effectiveness by:

- Communicating to the organization the importance of meeting customer, statutory, and regulatory requirements
- Establishing the quality policy
- Ensuring that quality objectives are established
- Conducting management reviews
- Ensuring the availability of resources

5.2 Customer Focus

N&P Precision Machine, Inc. establishes systems to understand its customers' needs in order to consistently meet the requirements as well as customers' expectations. **When expectations, such as product conformity and on time delivery, are not met, the customer will be notified.** Key process characteristics are determined, measured, and monitored for customers. Customer needs and expectations take into consideration product conformity, dependability, availability, delivery, and environmental impact.

N&P Precision Machine, Inc. also identifies the needs of the organization, owners, suppliers, the public, and the third party registrar that certifies the quality management system and responds accordingly.

5.3 Quality Policy

Management has guaranteed that the quality policy:

- Reflects the purpose of N&P Precision Machine, Inc.
- Is committed to requirements of the quality management system and works to increase its effectiveness
- Provides a framework for establishing and reviewing quality objectives

- Is communicated and understood throughout the organization
- Is reviewed for continuing suitability

5.4 Planning

5.4.1 Quality Objectives

N&P Precision Machine, Inc.'s process planning and quality policy provide a framework for establishing quality objectives. Measurable quality objectives are determined by process owners and Top Management to support performance improvements and maintain the quality management system. Results are gathered and documented in the form of statistical data to allow for analysis by management. Objectives take into consideration, as necessary, results of the following activities:

- Current and future needs of the organization and market
- Relevant findings from management reviews
- Current product and process performance
- Levels of satisfaction of interested parties
- Self-assessment results
- Benchmarking, competitor analysis, and opportunities for improvement
- Resources needed to meet objectives

Quality objectives are communicated internally in such a way as to allow for each employee to contribute to their achievement. They are systematically reviewed by management and process owners. By utilizing the reports on SimpleTrak, the process owners analyze the quality objectives and set new goals based on performance and achievement.

5.4.2 Quality Management System Planning

Top Management ensures that:

- The planning of the quality management system is carried out to meet the requirements given in 4.1, as well as the quality objectives
- The integrity of the quality management system is maintained when changes to the quality management system are planned and implemented

5.5 Responsibility, Authority, and Communication

5.5.1 Responsibility and Authority

Management has appointed authority and responsibility in the job descriptions, procedures, and the organizational chart to maintain an efficient quality management system. Top management ensures that responsibilities and authorities are defined and communicated.

5.5.2 Management Representative

Top management has appointed the President, a member of management, as the Management Representative who has responsibility and authority that includes:

- Ensuring that processes needed for the quality management system are established, implemented, and maintained
- Reporting to top management on the performance of the quality management system and citing any need for improvement
- Ensuring the promotion of awareness of customer requirements throughout the organization
- **The organizational freedom to resolve matters pertaining to quality**

5.5.3 Internal Communication

Management provides for communication of the quality policy, requirements, quality objectives, and their accomplishments through postings, postcards, relevant data, and reports. Management should document training, as appropriate. Internal communications are accomplished through planning documents, internal audits, and corrective actions.

5.6 Management Review

5.6.1 General

Top management reviews the organization's quality management system annually to ensure its suitability, adequacy, and effectiveness. This review will include assessing opportunities for improvement to the quality management system, including the quality policy and quality objectives.

Records from management reviews are maintained (see 4.2.4.) in SimpleTrak.

5.6.2 Review Input

Management reviews include information on:

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

5.6.3 Review Outputs

The output from the management review includes decisions and actions related to:

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

SimpleTrak Process Control

Management reviews are documented in Simpletrak DMR module. Above inputs and associated outputs are documented in the meeting minutes. All tasks that are assigned through the meeting minutes are scheduled in the software and followed up on in the Simpleview dashboard. Once all tasks have been completed Management review minutes can be closed and record maintained in DMR library.

Section 6

Resource Management

6.1 Provision of Resources

N&P Precision Machine, Inc. has determined and provided the resources needed:

- To implement and maintain the quality management system and continually improve its effectiveness
- To enhance customer satisfaction by meeting customer requirements

6.2 Human Resources

6.2.1 General

Personnel performing work affecting the conformity to product requirements are competent on the basis of appropriate education, training, skills, and experience.

6.2.2 Competence, Awareness, and Training

This company has:

- Determined the necessary competence for personnel performing work affecting conformity to product requirements
- Where applicable, provided training or has taken other actions to achieve the necessary competence
- Evaluated the effectiveness of the actions taken
- Communicated to N&P Precision Machine, Inc. personnel the importance of their activities and how they contribute to the achievement of the quality objectives
- Maintained appropriate records of education, training, skills and experience (see 4.2.4)

The company has appointed duties and responsibilities in the job descriptions. Trainings are conducted for individual employees based on their job descriptions with additional ad hoc training, as applicable.

SimpleTrak Process Control

Training area reports document employee training status and completion to provide evidence of training. Employee training may include both job training for the individual's job description as well as ad hoc training. Electronic copies of training area reports can be accessed and printed into a hard copy format on SimpleTrak. In addition, our company utilizes the training videos and instructions on Ion Connect to create competency with the SimpleTrak system itself. The videos provide a combination of verbal and visual directions to ensure the understanding of our management members, quality representatives, and relevant employees

6.3 Infrastructure

N&P Precision Machine, Inc. has determined, built, and maintained the infrastructure needed to achieve conformity to product requirements. Infrastructure includes, as applicable:

- Buildings, workspace, and associated utilities
- Process equipment (both hardware and software)
- Supporting services (such as transport or communication)

SimpleTrak Process Control

Maintenance inventory is initially added to the SimpleTrak system and preventive maintenance schedules are created for all operating equipment. We perform scheduled preventive maintenance for our equipment and tools in order to minimize the risk of equipment failure or problems. The Maintenance Module in SimpleTrak houses all maintenance inventory lists and preventive maintenance logs, which are easily converted into printable reports.

6.4 Work Environment

The company has determined and managed the work environment needed to achieve conformity to product requirements.

Section 7

Product Realization

7.1 Planning of Product Realization

Our company plans and develops the processes needed for product realization. Planning of product realization is consistent with the requirements of the other processes of the quality management system (see 4.1).

In planning product realization, the company determines the following, as appropriate:

- Quality objectives and requirements for the product

  Quality Objectives and requirements for the product may include consideration of aspects such as:
  1. **Product and personal safety**
  2. **Reliability, availability, and maintainability**
  3. **Ability to be produced and inspected**
  4. **Suitability of parts and materials used in the product**
  5. **Selection and development of embedded software**
  6. **Recycling or final disposal of the product at the end of its life**

- The need to establish processes and documents as well as provide resources specific to the product

- Required verification, validation, monitoring, measurement, inspection, and test activities specific to the product/service and the criteria for product acceptance

- Records needed to provide evidence that the realization processes and resulting product meet requirements (see 4.2.4)

- **Configuration management appropriate to the product**

- **Resource support for the use/maintenance of the product**

The output of this planning will be documented in the form of a manufacturing plan (see 7.5).

7.1.1 Project Management

As appropriate to the organization and product, N&P Precision Machine, Inc. will plan and manage product realization in a structured and controlled manner to meet requirements at acceptable risk, within resource and schedule constraints.

As applicable the following steps apply in project management:

- Contract review (including risk management, resource capabilities, internal capabilities, etc.)

- Planning

- Supplier Management
- Status Updates

7.1.2 Risk Management

The company has established, implemented, and maintained a process for managing risk to reach applicable requirements.

The risk management process includes:

- **Assignment of responsibilities**
- **Defining risk criteria (e.g., likelihood, consequences, risk acceptance)**
- **Identification, assessment, and communication of risks throughout product realization**
- **Identification, implementation, and management of actions to mitigate risks that exceed the defined risk acceptance criteria**
- **Acceptance of risks remaining after implementation of mitigating actions**

The President is responsible for risk mitigation.

For further information, see the associated procedure AS PR-7.1-01.

7.1.3 Configuration Management

The company has established, implemented, and maintained a configuration management process that is appropriate to the product and processes at N&P Precision Machine, Inc. Due to the fact that the company does not design or develop any products, configuration management is addressed through revision control throughout product realization. Revision changes received from customers are evaluated to identify impact to product.

During internal audits, configuration management is audited by following the revision control from initiation of contract to product shipment.

7.1.4 Control of Work Transfers

The company has implemented a process to plan/control the temporary or permanent transfer of work (e.g. from one organization facility to another, from the organization to a supplier, from one supplier to another supplier) and verify the conformity to work requirements.

7.2 Customer-Related Processes

7.2.1 Determination of Requirements Related to the Product

N&P Precision Machine, Inc. will determine:

- Requirements specified by the customer, including the requirements for delivery and post-delivery activities
- Requirements not stated by the customer but are necessary for specified or intended use, where known
- Statutory and regulatory requirements applicable to the product
- Any additional requirements determined necessary by the organization

7.2.2 Review of Requirements Related to the Product

The company will review the requirements related to the product. This review will be conducted prior to the company's commitment to service the customer (e.g. submission of tenders, acceptance of contracts or orders, acceptance of changes to contracts or orders) and will ensure that:

- Product requirements are defined
- Contract or order requirements differing from those previously expressed are resolved
- The organization has the ability to meet the defined requirements
- **Special requirements of the product are determined**
- **Risks (e.g. new technology, short delivery time scale) have been identified**

Records of the results and actions from the review will be maintained (see 4.2.4)

When the customer provides no documented statement of requirements, the customer requirements will be confirmed by the company before acceptance.

When product requirements are changed, our company will ensure that relevant documents are amended and that relevant personnel are made aware of the changed requirements.

7.2.3 Customer Communication

N&P Precision Machine, Inc. will determine and implement effective arrangements for communicating with customers in relation to:

- Product information
- Enquiries, contracts, or order handling, including amendments

- Customer feedback, including customer complaints

For further information, see associated procedure AS PR-7.2-01.

7.4 Purchasing

7.4.1 Purchasing Process

Our company ensures that purchased product conforms to specified purchase requirements. The type and extent of control applied to the supplier and the purchased product will depend on the effect of the purchased product on product realization or the final product.

This organization is responsible for the conformity of all products purchased from suppliers, including product from sources defined by the customer.

Suppliers are evaluated and selected based on their ability to supply product in accordance with our company's requirements. A criterion for selection, evaluation, and reevaluation is established. Records of the results of evaluations and any necessary actions arising from the evaluation will be maintained (see 4.2.4).

N&P Precision Machine, Inc. will:

- **Maintain a register of approved suppliers that includes approval status in SimpleTrak (e.g., approved, conditional, disapproved) and the scope of the approval (e.g. product time, process family)**
- **Periodically review supplier performance; records of these reviews will be used as a basis for establishing the level of controls implemented**
- **Define the necessary actions to take when dealing with suppliers that do not meet requirements**
- **Ensure, when required, that both the company and all suppliers use customer approved special process sources**
- **Define the process, responsibilities, and authority for approval status decisions, changes of the approval status, and conditions for a controlled use of suppliers depending on their approval status**
- **Determine and manage the risk when selecting/using suppliers (see SimpleTrak Supplier Scorecard)**

SimpleTrak Process Control

The Supplier Module in SimpleTrak allows our company to manage our suppliers. Suppliers are added to SimpleTrak, then approved according to our company's standards. The approved supplier list is maintained in SimpleTrak and suppliers are reevaluated annually to ensure continued compliance with our company's requirements. The Supplier

Scorecard presents a record of supplier history and risk for our review. If a supplier is found to be in the high risk category, that company may be quarantined and their services for N&P Precision Machine, Inc. may be suspended.

7.4.2 Purchasing Information

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

- Requirements for approval of product, procedures, processes, and equipment
- Requirements for qualification of personnel
- Quality management system requirements
- **The identification and revision status of specifications, drawings, process requirements, inspection/verification instructions, and other relevant technical data**
- **Requirements for design, test, inspection, verification (including production process verification), use of statistical techniques for product acceptance, related instructions for acceptance by the company, and critical items including key characteristics**
- **Requirements for test specimens (e.g., production method, number, storage conditions), inspection/verification, investigation, or auditing**
- **Requirements regarding the need for the supplier to:**

  1. Notify the company of a nonconforming product
  2. Obtain company approval for nonconforming product disposition
  3. Notify the company of changes in product and/or process, suppliers, manufacturing, facility location and, where required, obtain organization approval
  4. Flow down all applicable requirements (including customer requirements) to the supply chain

- **Records retention requirements**
- **Right of access by the company, our customer, and regulatory authorities to the applicable areas of all facilities at any level of the supply chain involved in the order and to all applicable records**

N&P Precision Machine, Inc. will ensure the adequacy of specified purchase requirements prior to their communication with the supplier.

For further information, see associated procedure AS PR-7.4-01.

7.4.3 Verification of Purchased Product

N&P Precision Machine, Inc. has established and implemented inspections necessary for ensuring that purchased product meets specified purchase requirements.
Verification activities may include:

- **Obtaining objective evidence about the quality of the product from suppliers (e.g., accompanying documentation, certificate of conformity, test reports, statistical records, process control)**
- **Inspection and audit at supplier's facilities**
- **Review of required documentation**
- **Inspection of products upon receipt**
- **Delegation of verification to the supplier or supplier certification**

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

Where the company delegates verification activities to the supplier, the requirements for delegation will be defined and a register of delegations maintained.

The company will not use customer verification as evidence of effective quality control by the supplier. Customer verification does not absolve the company of the responsibility to provide acceptable product, nor does it preclude subsequent rejection by the customer.

Where the company or its customer intends to perform verification at the supplier's facilities, the company will state the intended verification arrangements and method of product release in the purchasing information.

For further information, see associated procedure AS PR-7.4-01.

7.5 Production and Service Provision

7.5.1 Control of Production and Service Provision

N&P Precision Machine, Inc. will plan and carry out production and service provision under controlled conditions. Controlled conditions include, as applicable:

- The availability of information that describes the characteristics of the product
- The availability of work instructions, as necessary
- The use of suitable equipment (see 6.3)
- The availability and use of monitoring and measuring equipment (see 7.6)
- The implementation of monitoring and measurement
- The implementation of product release, delivery, and post-delivery activities
- **Accountability for all product during production (e.g., parts quantities, split orders, nonconforming product)**

- **Evidence that all production and inspection/verification operations have been completed as planned or otherwise documented and authorized**

- **Provision for the prevention, detection, and removal of foreign objects**
    - **Travelers, as applicable, will have an operation for FOD check**
    - **FOD training is conducted with all new employees upon hire**
    - **FOD awareness signs serve as visual reminders of FOD practices**

- **Monitoring of utilities and supplies such as water, compressed air, electricity, and chemical products to the extent that they affect product requirements**

- **Criteria for workmanship will be specified in the clearest practical way (e.g., written standards, representative samples, or illustrations)**

Planning will consider, as appropriate:

- **Establishing, implementing, and maintaining appropriate processes to manage critical items, including process controls where key characteristics have been identified**

- **Designing, manufacturing, and using tooling to measure variable data**

- **Identifying in-process inspection/verification points when adequate verification of conformance cannot be performed at later stages of realization**

- **Special processes (see 7.5.2).**

For further information, see associated procedure AS PR-7.5.1-01.

7.5.1.1 Production Process Verification

N&P Precision Machine, Inc. will use a representative item from the first production run of a new part or assembly to verify that the production processes, documentation, and tooling are capable of producing parts that meet requirements. This process will be repeated when changes occur that invalidate the original results (e.g. engineering changes, manufacturing process changes, tooling changes).

7.5.1.2 Control of Production Process Changes

Personnel authorized to approve changes to production processes will be identified in the Production Control Procedure AS PR-7.5.1-01.

The company will control and document changes affecting processes, production equipment, tools, or software programs.

Additionally, the results of changes to production processes will be assessed to confirm that the desired effect has been achieved without defying product conformity.

7.5.1.3 Control of Production Equipment, Tools, and Software Programs

Production equipment, tools, and software programs used to automate and control/monitor product realization processes, will be validated prior to release for production and shall be maintained. Storage requirements, including periodic preservation/condition checks, will be defined for production equipment or tooling in storage.

For further information, see associated procedure AS PR-7.5.1-01.

7.5.2 Validation of Processes for Production and Service Provision

N&P Precision Machine, Inc. will validate any processes for production where the resulting output cannot be verified by subsequent monitoring and measurement. This includes any processes where deficiencies become apparent only after the product is in use or has been shipped. Validation will demonstrate the ability of these processes to achieve planned results.

The company will establish arrangements for these processes including, as applicable:

- Defined criteria for review and approval of these processes
- Approval of equipment and qualification of personnel
- Requirements for records (see 4.2.4)
- Re-validation

7.5.3 Identification and Traceability

Where appropriate, N&P Precision Machine, Inc. will identify the product by suitable means throughout product realization.

The company will maintain identification of the configuration of the product in order to find any differences between the actual configuration and the agreed configuration.

The company will identify the product status with respect to monitoring and measurement requirements throughout product realization.

When acceptance authority media is used (e.g., stamps, electronic signatures, passwords), the organization will create and document controls for such media.

Where traceability is required, we will control and record the unique identification of the product (see 4.2.4).

- **Traceability requirements may include:**
    - **Identification to be maintained throughout the product life**

- **The ability to trace all products manufactured from the same batch of raw material, or manufacturing batch, to the destination (e.g. delivery, scrap)**
- **The ability to trace assembly components to the original assembly and subsequent stages**
- **A sequential record of the production (manufacture, assembly, inspection/verification) of a product to be retrievable**

7.5.4 Customer Property

The company will exercise care with customer property while it is under the organization's control or is being used by the organization. N&P Precision Machine, Inc. will identify, verify, protect, and safeguard customer property provided for use or incorporation into the product. If any customer property is lost, damaged, or otherwise found unsuitable for use, the company will report this to the customer and maintain records (see 4.2.4).

Customer property can include intellectual property and personal data.

7.5.5 Preservation of Product

N&P Precision Machine, Inc. will preserve the product during internal processing and during the intended destination in order to maintain conformity to the requirements. As applicable, preservation shall include identification, handing, packaging,
storage, and protection. Preservation will also apply to the constituent parts of a product.
Preservation of product also includes, where applicable in accordance with product specifications/ applicable statutory and regulatory requirements, provisions for:

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

7.6 Control of Monitoring and Measuring Devices

N&P Precision Machine, Inc. has established processes to ensure that monitoring and measurement can be carried out and are consistent with the monitoring and measurement requirements. The company has determined the monitoring and measurement equipment need to provide evidence of conformity to product requirements.

We will maintain a register of the monitoring and measuring equipment. Also, we will define the processes for calibration/verification including details of equipment type, identification, location, frequency of checks, check methods, and acceptance criteria. This document is located in the Calibration Module of SimpleTrak.

Monitoring and measuring equipment includes, but is not limited to: test hardware, test software, automated test equipment, and plotters used to produce inspection data. It may also include personally owned or customer supplied equipment used to provide evidence of product conformity.

Our company will ensure that environmental conditions are suitable for the calibrations, inspections, measurements, and tests.

Where necessary to ensure valid results, measuring equipment will:

- Be calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards. Where no such standards exist, the basis used for calibration or verification shall be recorded

- Be adjusted or re-adjusted as necessary

- Be identified to enable the calibration status to be determined

- Be safeguarded from adjustments that would invalidate the measurement result

- Be protected from damage and deterioration during handling, maintenance, and storage

Selection criteria for calibration are as follows:

- Frequency of usage
- Review of the calibration date to determine drifting of tolerance
- Past history of data
- Manufacturers recommendation
- Type of application

The organization has established, implemented, and maintained a process for the recall of monitoring and measuring equipment requiring calibration or verification.

In addition, our company will assess and record the validity of the previous measuring results when the equipment is not found to conform to requirements. We will take appropriate action on the equipment and any product effected. The occurrence and any action taken will be logged as a Tooling/Property NCR in the NCR Module of SimpleTrak. Records of the results of calibration and verification will be maintained (see 4.2.4).

When used in the monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application will be confirmed. This will be completed prior to initial use and reconfirmed as necessary. Confirmation of the ability of computer software to satisfy the intended application would typically include its verification and configuration management to maintain its suitability for use.

Measuring equipment is identified as the following:

- Unique identification number and calibration date - Acceptable to use for inspection purposes

- Reference only – Reference item only; not for inspection

- Verify before use – Devices are verified and verification is recorded prior to use

SimpleTrak Process Control

The Calibration Module in SimpleTrak allows users to record inventory, track maintenance, forecast maintenance, and generate reports for calibration as well as inventory. Each time an item is calibrated, it is entered into the system to verify completed calibration, record results of calibration, show current status of calibrated items, and recall items to be calibrated per schedule.

If an item is found to be out of tolerance during the calibration process, a Tool/Property NCR investigation is started to identify potentially affected product, and create a Corrective Action Investigation (see PR-8.5.2-01).

Section 8

Measurement, Analysis, and Improvement

8.1 General

N&P Precision Machine, Inc. will plan and implement the monitoring, measurement, analysis, and improvement processes needed to:

- Demonstrate conformity to product requirements
- Ensure conformity of the quality management system
- Continually improve the effectiveness of the quality management system

This will include determination of applicable methods, including statistical techniques, and the extent of their use.

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

N&P Precision Machine, Inc. will use information regarding customer satisfaction to monitor the ability of the quality system to meet customer requirements. The methods for obtaining and using this information will be determined.

Information collected regarding customer satisfaction will include, but is not limited to, product conformity, on-time delivery performance, customer complaints, and corrective action requests. When deficiencies are identified, we will respond by creating and implementing plans for customer satisfaction improvement and will access the effectiveness of the results.

SimpleTrak Process Control

The Customer Survey Module in SimpleTrak allows for surveys to be created and sent to customers. Once completed, customer surveys can be evaluated in SimpleTrak to determine where internal improvements can be made.

8.2.2 Internal Audit

Our company will conduct internal audits at planned intervals to determine whether the quality management system:

- Conforms to planned arrangements (see 7.1), the International Standard, and the quality management system requirements established by the organization

- Is effectively implemented and maintained

Our company will plan internal audits, taking into consideration the status and importance of the processes and areas to be audited as well as the results of previous audits, to guarantee our commitment to our quality system. The audit criteria, scope, frequency, and methods will be defined. Selection of auditors and conduct of audits will ensure objectivity and impartiality of the auditing process. Auditors will not audit their own work.

The responsibilities and requirements for planning and conducting of audits, and for reporting results and maintaining records (see 4.2.4), are defined in a documented procedure.

Records of audits will be maintained (see 4.2.4).

The management of the area being audited will ensure that actions are taken to eliminate nonconformities and causes. Follow-up activities will include the verification of the actions taken and the reporting of verification results (see 8.5.2).

For further information, see associated procedure AS PR-8.2.2-01.

8.2.3 Monitoring and Measurement of Processes

N&P Precision Machine, Inc. will apply suitable methods for monitoring and measurement of the quality management system processes. These methods will demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, correction and corrective action will be taken, as appropriate.

In the event of process nonconformity, the company will:

- **Take appropriate action to correct the nonconforming process**
- **Evaluate whether the process nonconformity has resulted in product nonconformity**
- **Determine if the process nonconformity is limited to a specific case or whether it could have affected other processes/products**
- **Identify and control the nonconforming product (see 8.3)**

SimpleTrak Process Control

KPI's, system summaries, and various other reports can be accessed through the Management Module on SimpleTrak. The KPI Module allows for the scheduling and recording of this type of process measurement and evaluation.

8.2.4 Monitoring and Measurement of Product

The company will monitor and measure the characteristics of the product to verify that product requirements have been met. This is carried out at appropriate stages of the product realization process in accordance with the planned arrangements (see 7.1). Evidence of conformity with the acceptance criteria shall be maintained.

Measurement requirements for product acceptance shall be documented and will include:

- **Criteria for acceptance and/or rejection**
- **Where in the sequence measurement and testing operations are to be performed**
- **Required records of the measurement results (at a minimum, indication of acceptance or rejection)**
- **Any specific measurement instruments required and any specific instructions associated with their use**

When critical items, including key characteristics, have been identified the company will ensure that they are controlled and monitored according to established processes.

When the organization uses sampling inspection as a means of product acceptance, the sampling plan will be justified on the basis of recognized statistical principles and use (i.e., matching the sampling plan to the criticality of the product and the process capability).

When a product is released for production upon the pending completion of all required monitoring and measurement activities, it will be identified and recorded to allow for recall/replacement if it does not meet our company's requirements.

Records will indicate the person(s) authorizing release of product for delivery to the customer (see 4.2.4).

Product release and service delivery will not proceed until the planned arrangements (see 7.1) have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, the customer.

N&P Precision Machine, Inc. will ensure that all documents required by the customer accompany the product at delivery.

For further information, see associated procedures AS PR-8.2.4-01, AS PR-8.2.4-02, and AS PR-8.2.4-03.

8.3 Control of Nonconforming Product

N&P Precision Machine, Inc. will ensure that service or product that does not conform to requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities/authorities for dealing with nonconforming product are defined in the Nonconforming Product Procedure AS PR-8.3-01.

The company's documented procedure defines the responsibility and authority for the review/disposition of nonconforming product. The procedure also describes the process for approving personnel to make decisions regarding nonconforming product.

Where applicable, our company will deal with nonconforming service by one or more of the following ways:

- By eliminating the detected nonconformity
- By authorizing its use, release, or acceptance under concession by a relevant authority and, where applicable, by the customer

- By discontinuing the product's intended use or application

- By appropriating the product's effects or potential effects if the nonconformity is detected after delivery or use

The company's nonconforming product process will provide timely reporting of delivered nonconforming product:

- **By taking actions necessary to contain the effect of the nonconformity on other processes or products**

Parties requiring notification of nonconforming product can include suppliers, internal organizations, customers, distributors, and regulatory authorities.

Dispositions of use-as-is repair will only be used after approval by an authorized representative of the organization responsible for design.

If the nonconformity results in a departure from the contract requirements, the company will not use dispositions of use-as-is or repair unless specifically authorized by the customer.

Product dispositioned for scrap will marked and controlled until rendered unusable.

When nonconforming product is corrected it shall be subject to re-verification to demonstrate conformity to the requirements.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, shall be maintained (see 4.2.4).

For further information, see associated procedure AS PR-8.3-01.

8.4 Analysis of Data

We will determine, collect, and analyze data to demonstrate the sustainability/effectiveness of the quality management system. Data is also used to evaluate how to improve the quality management system. This will include data generated as a result of monitoring and measurement as well as from other relevant sources.

The analysis of data shall provide information relating to:

- Customer satisfaction (see 8.2.1)

- Conformity to requirements (see 7.2.1)

- Characteristics and trends of processes/products including opportunities for preventive action (see 8.2.3 and 8.2.4)
- Suppliers

SimpleTrak Process Control

The Reports section within the Management Module in SimpleTrak offers logs of several different subject areas within the company's quality system. These easily accessible reports allow members of our company to analyze the functionality and effectiveness of our quality system. The report types include, but are not limited to, supplier, NCR quantities, rework cost analysis, and waste cost analysis.

8.5 Improvement

8.5.1 Continual Improvement

This company will continually improve the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective/preventive actions, and management reviews.

N&P Precision Machine, Inc. will monitor the improvement activities to evaluate the effectiveness.

SimpleTrak Process Control

See section 8.4 for a list of SimpleTrak management report functions.

8.5.2 Corrective Action

The company will take action to eliminate the causes of the nonconformities in order to prevent recurrence. Corrective actions shall be appropriate to the effects of the nonconformity.

A documented procedure has been established to define requirements for:

- Reviewing nonconformities (including customer complaints)
- Determining the causes of nonconformities
- Evaluating the need for action to ensure that nonconformities do not recur
- Determining and implementing action needed
- Records of the results of action taken (see 4.2.4)
- Reviewing the effectiveness of corrective actions taken
- **Flowing down corrective action requirements to a supplier when the supplier is responsible for the nonconformity**
- **Specific actions where timely and/or effective corrective actions are not achieved**

- **Determining if additional nonconforming product exists based on the causes of the nonconformities and taking further action when required**

For further information, see associated procedure AS PR-8.5.2-01.

8.5.3 Preventive Action

This company will take action to eliminate the causes of potential nonconformities to prevent future occurrence. Preventive actions will be appropriate to the effects of the potential problems.

A documented procedure has been established to define requirements for:

- Determining potential nonconformities and their causes
- Evaluating the need for action to prevent occurrence of nonconformities
- Determining and implementing action needed
- Records of the results of action taken (see 4.2.4)
- Reviewing the effectiveness of preventative actions taken

For further information, see associated procedure AS PR-8.5.3-01.

Section 9

Appendix A - Definitions

There are key words that require the understanding of company personnel following this international standard. The definitions that are to be associated with these words are contained in ISO 9001:2008 Standard: Quality Management Systems-Fundamentals and vocabulary.

The following represent definitions that are essential to the correct interpretation of the standard and are either stated directly or paraphrased from the Standard.

These definitions are not all-inclusive but, rather, are ones that form the framework for the implementation and management of the quality management system.

Assessment: Used to describe the audits (Internal Audits - 8.2.2.a) conducted by Internal Assessors.

Audit: Systematic, independent process for obtaining evidence and evaluating said evidence objectively to determine the extent to which certain criteria are fulfilled.

Continual improvement: Includes improvement of the QMS (quality management system) framework and company/product, service, or solution performance. *NOTE: The process of continual improvement does not need to take place in all areas of activities, products and services simultaneously; company units and sites may prioritize continual improvement efforts based on their specific quality and company objectives.

Corrective Action: Action taken to eliminate the cause of an existing nonconformity or other undesirable situation; action taken to prevent recurrence. These actions may include but are not limited to: (1) root cause analysis; (2) changes to processes; (3) changes to procedures; (4) changes to requirements; and (5) changes to monitoring and measurement programs.

Conformity: Fulfillment of specified requirements.

Contract: Agreed requirements between a supplier and customer transmitted by any means.

Customer: Used to describe both external customers and regulatory agencies.

Document: Information and its support medium; may include but is not limited to electronic, photographic, drawn, written or printed material.

Functional organizations: Organization performing specific tasks or functions, for example: legal or procurement.

Non-conformity: Lack of fulfillment of a specified requirement.

Organization: Provider of a product to the customer.

Procedure: Specified way to carry out an activity or process; a series of activities that define a particular task, which

may include, but is not limited to, instructions, checklists, and flowcharts.

Process: Set of interrelated or interacting activities, which transform inputs into outputs.

Procurement: Purchasing function.

Product: Result of a process, service, or item developed, manufactured, assembled, provided, or sold by the company. Products: components, assemblies, parts, software, support, education, management; includes products, services, intellectual property, and solutions.

Quality: Degree to which a set of inherent characteristics fulfill requirements.

Quality Management: All activities of the overall management functions that determine the quality policy, objectives, and responsibilities, such as quality planning, quality control, quality assurance, and quality improvement within the quality system.

Quality Management System: Organization structure, procedures, processes, and resources needed to implement quality management.

Quality Manual: Document stating the quality policy and describing the quality system of an organization.

Quality Objectives: Something sought or aimed for, related to quality; generally based on the organization's quality policy and specified for relevant functions and levels in the organization.

Quality Policy: Overall intention and direction of an organization with regard to quality as formally expressed by top management; statement by the organization, which provides a framework for setting quality objectives and targets.

Record: Document stating results achieved or providing evidence of activities performed; evidence that an event or activity occurred including, but not limited to, written evidence in the form of hard copy or soft copy memoranda, checklists, meeting minutes or notes, presentations, budgets, and capital and/or expense plans.

Services: See product.

Shall: "must" or "is required."

Should: "suggested" or "recommended."

Supplier: Provider of a product to the organization.

Top Management: Highest level of management with direct responsibility for an enterprise, site, function, or product.

Traveler: Any form of documented planning, including a work order and router.

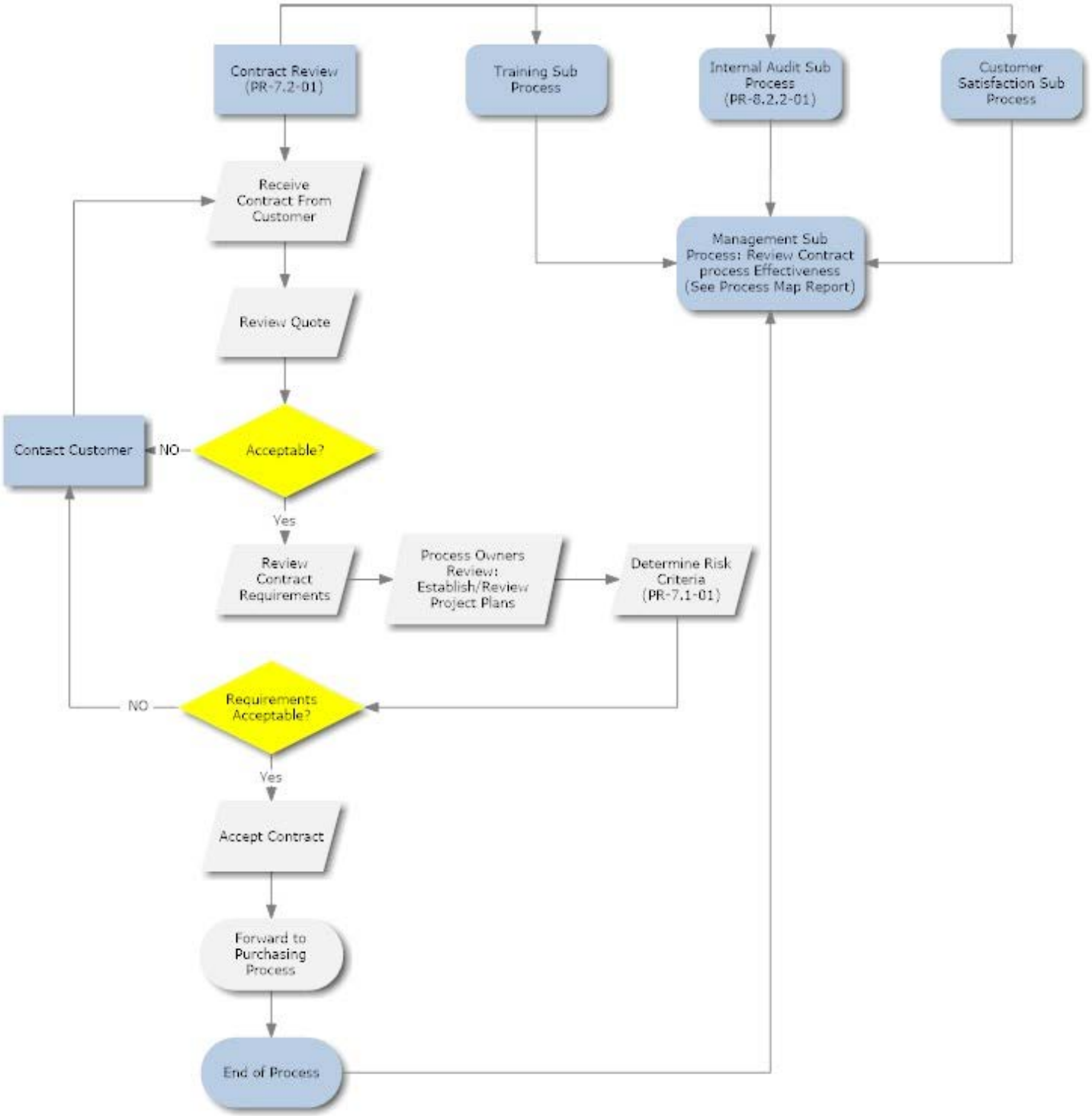
Appendix B- Procedures

ISO 9000 ELEMENT		PROCEDURE NO.	PROCEDURE TITLE
4	Quality Management System		
4.1	General Requirements		
4.2	Documentation Requirements	PR-4.2.3-01 PR-4.2.4-01	Control of Documents Control of Records
5.1	Management Commitment		
5.2	Customer Focus		
5.3	Quality Policy		
5.4	Planning		
5.5	Responsibility, Authority and Communication		
5.6	Management review		
6.1	Provision of Resources		
6.2	Human Resources		
6.3	Infrastructure		
6.4	Work Environment		
7.1	Planning of Product Realization	PR-7.1-01	Risk Management
7.2	Customer-related Process	PR-7.2.0-01	Customer- Related Processes
7.3	Design and Development		
7.4	Purchasing	PR-7.4.0-01	Purchasing
7.5	Production and Service Provision	PR-7.5.1-01	Control of Production

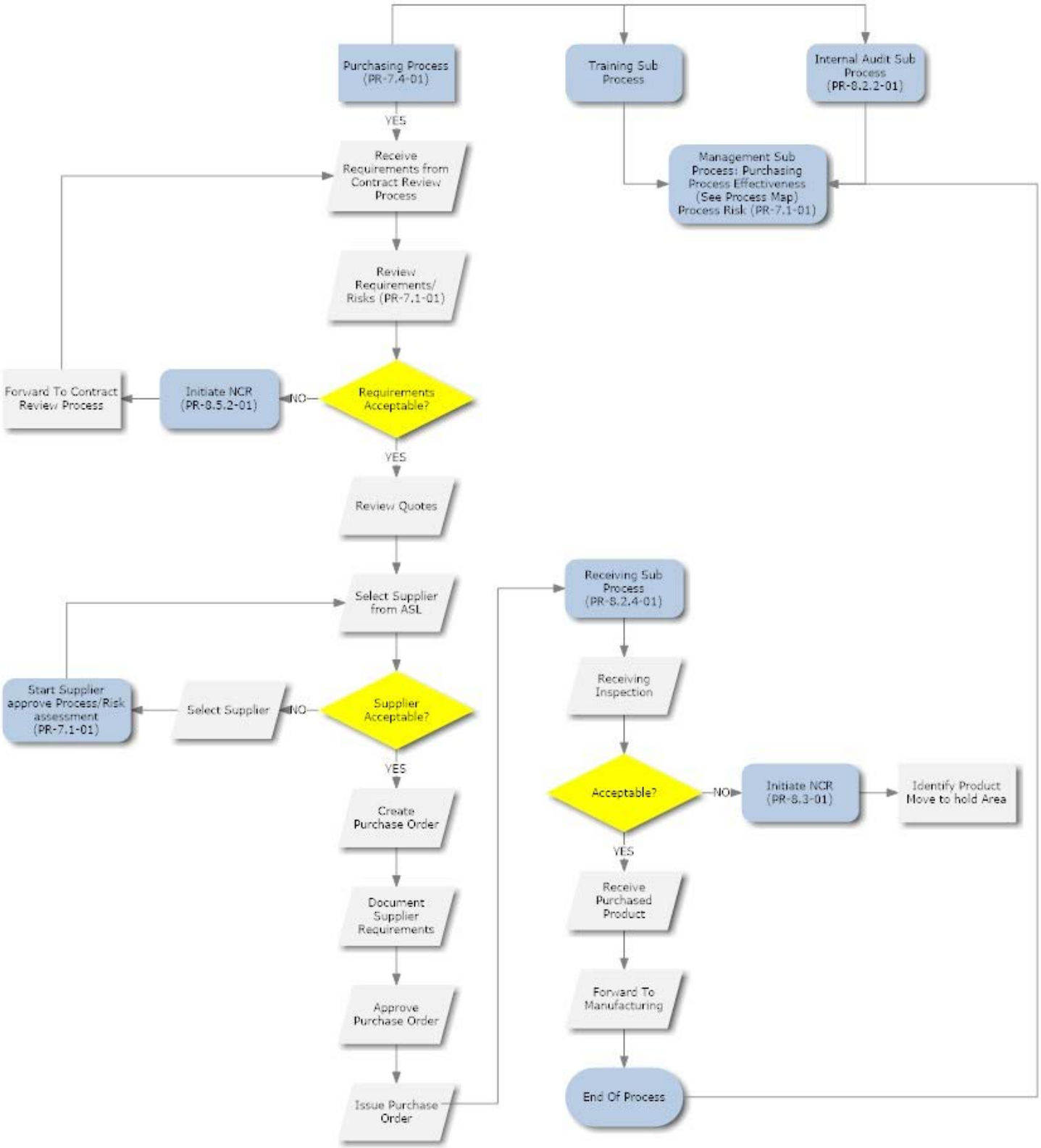
7.6	Control of Monitoring and measuring Devices		
8.1	General		
8.2	Monitoring and Measurement	PR-8.2.2-01 PR-8.2.4-01 PR-8.2.4-02 PR-8.2.4-03	Internal Audit Receiving Inspection In-Process Inspection Final Inspection
8.3	Control of Nonconforming Product	PR-8.3.0-01	Control of Nonconforming Product
8.4	Analysis of Data		
8.5	Improvement	PR-8.5.2-01 PR-8.5.3-01	Corrective Action Preventive Action

Appendix C-Process Specific Interaction Flowcharts

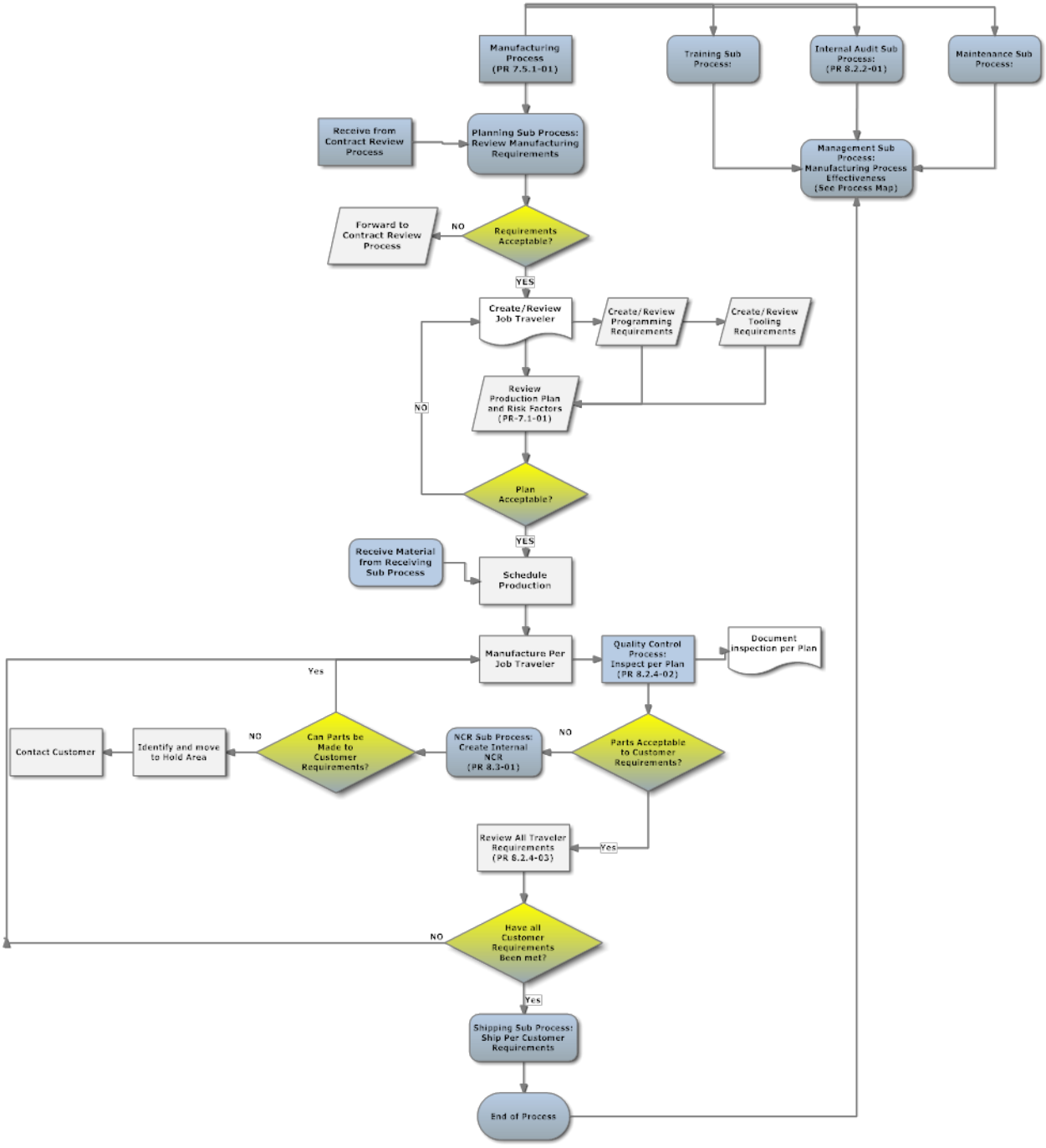
Contract Review Process Flow



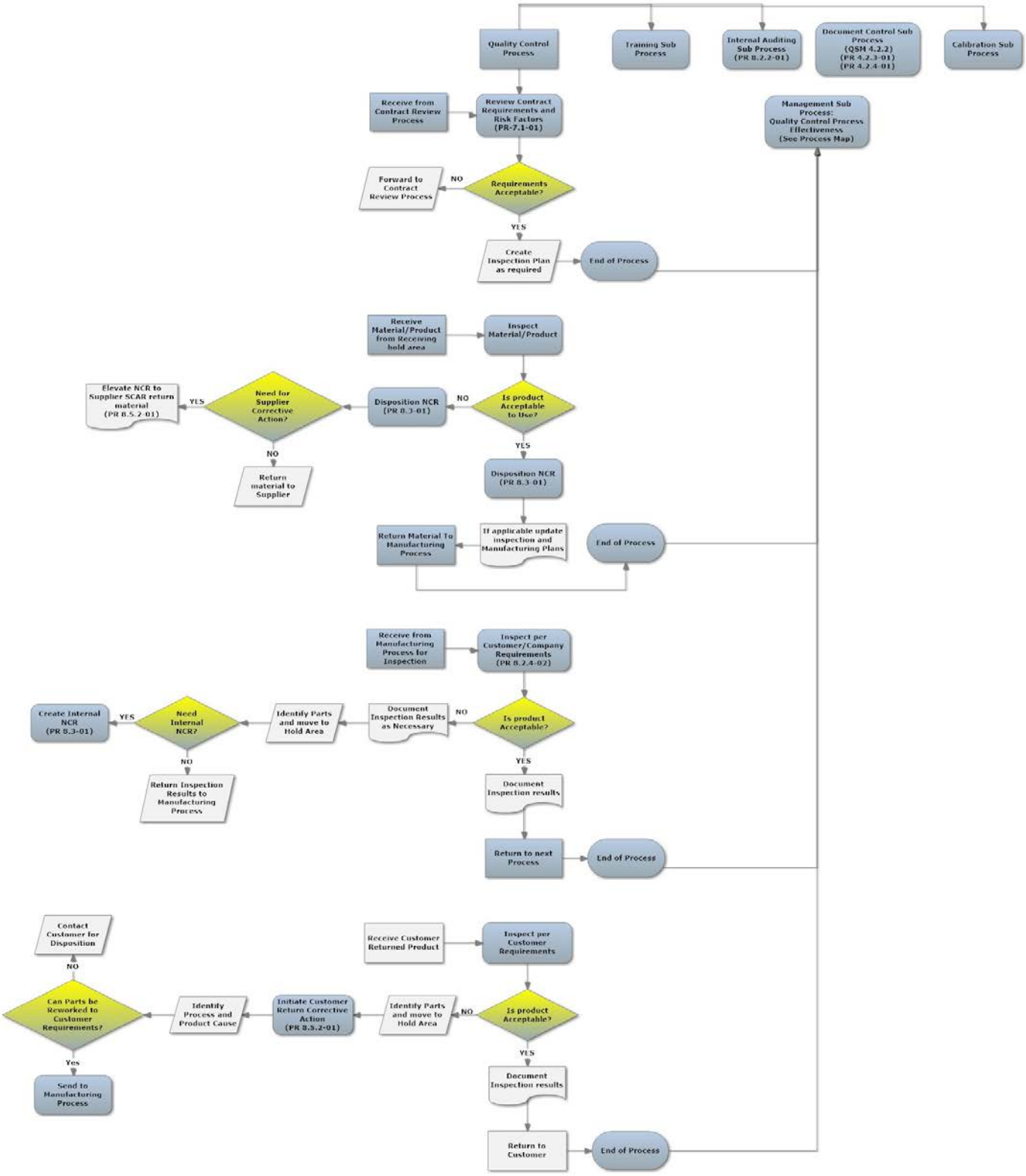
Purchasing Process Flow



Manufacturing Process Flow



Quality Control Process Flow



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