

**PERKINS MACHINE CO.
QUALITY PROCEDURES**

Quality Procedures Approval

Title	Name	Signature	Date
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Table of Contents

Procedure	Title	Revision
7.1.5	Monitoring and Measuring Resources	NC
7.2.5	Competence and Awareness	NC
7.5	Control of Documented Information	NC
8.1	Operational Planning and Control	NC
8.1.1	Risk Management	NC
8.1.4	Prevention of Counterfeit Parts	NC
8.2	Requirements for Products and Services	NC
8.4	Purchasing	NC
8.5	Production	NC
8.5.1	Inspection	NC
8.5.3	Property Belonging to Customers or External Providers	NC
8.5.4	Preservation	NC
8.5.4.1	Foreign Object Detection	NC
8.7	Control of Nonconforming Products	NC
9.1.2	Customer Satisfaction	NC
9.2	Internal Audit	NC
10.2	Nonconformity and Corrective Action	NC

Title: Monitoring and Measuring Resources

Procedure: 7.1.5

Page: 1 of 2

1.0 Purpose: This procedure establishes the methods for PMC to determine the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of product to determined requirements. All calibration at PMC is traceable to the National Institute of Standards and Technology, or equivalent. Equipment subject to Calibration at PMC has a work instruction written which establishes the method of calibration on that type of equipment. The work instructions are derived from manufacturer's specifications and industry data. **Personal equipment** is to be used for reference only and checked each use. All new test equipment is routed to the Quality Department prior to use for product acceptance. **New Equipment** is evaluated and, as required by this document, be given a control number, inspection and/or maintenance schedule and a calibration label.

2.0 Responsibility: The Quality Manager or designee are responsible for compliance to this procedure.

3.0 Required Documentation: Calibration Recall List, In-house Calibration data sheets, Calibration Work-Instructions, Out of Tolerance form

4.0 Procedure: PMC maintains a register of monitoring and measuring resources and define the process employed for their calibration/verification including details of equipment type, unique identification, location, frequency of checks, check method and acceptance criteria. Monitoring and Measurement resources are typically referred to as "Calibrated equipment".

PMC establishes processes to ensure that monitoring and measurement can be carried out and are carried out in a manner that is consistent with the monitoring and measurement requirements. Shop equipment can be calibrated in shop ambient conditions. All in house calibrations must be performed by trained employees. The training must be documented, and management will assess their competence through assessment, testing, or observed performance. PMC ensures that environmental conditions are suitable for the calibration, inspection, measurement and testing being carried out. Where necessary to ensure valid results, measuring equipment is controlled as follows:

a) Frequency Control: Measuring Equipment is calibrated or verified, or both, 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 is recorded. The frequency of calibration for each device shall be adjusted based on the history of the device and its impact on product quality. *NOTE: third party calibration providers may not establish calibration frequencies; this must be determined by PMC.*

Calibration Due Date: A specific calibration due date is established, and the calibration label is attached to the equipment. Gauges too small to affix a sticker, or equipment in an environment where stickers do not adhere use an alternate method of marking. Equipment due for calibration is gathered and readied for calibration. All equipment is re-calibrated by that date.

Temporary Extensions: Temporary extensions of calibration intervals may be authorized under certain conditions (i.e., completion of test in progress or no usage of that equipment). The Quality Manager or designee authorizes these extensions that are based on favorable (in tolerance) results of past calibration. This decision is documented. In addition, the instrument must be found to be in tolerance upon calibration. The extension period may be for the normal calibration interval or for shorter periods of time. All extensions are entered on the calibration recall list.

Lengthening Intervals: Frequency intervals may be lengthened on instruments that have exhibited no out-of-tolerance conditions in 5 consecutive evaluations.

Shortening Intervals: Intervals are shortened when an out-of-tolerance condition has occurred in 2 out of 5 evaluations.

b) Measuring equipment is adjusted or re-adjusted as necessary.

c) Calibration Label, measuring equipment has identification to determine its calibration status. Upon completion of calibration and providing the equipment is found satisfactory; it is tagged with a calibration label. This label indicates the calibration date and the due date of the next inspection. This label is stamped or initialed by the person performing the calibration.

d) Equipment Identification: Each piece of equipment that is used for qualitative measurement is controlled in accordance with this procedure and identified with an asset number. Small hand instruments and tools can be marked by acceptable "best" methods. When it is impractical to apply labels to the equipment (such as pin gauges) they may be applied to the container.

e) Disposition of Obsolete or Defective Equipment: Obsolete or defective equipment is removed from service, and placed in bonded storage. If the equipment is later reused, it is re-inspected as required per this procedure. If the equipment is beyond repair, it is permanently removed from service. If the equipment is repairable it is repaired to manufactures specification.

Title: Monitoring and Measuring Resources

Procedure: 7.1.5

Page: 2 of 2

f) Handling of Rejected or Unfit Equipment: When, during normal calibration, controlled equipment is found to be out of tolerance or unfit for its intended purpose, Quality Management is notified. It is the responsibility of President or designee to take action. PMC will determine the validity of previous measure results.

g) When the Equipment Is Found Not to Conform to Requirements: The Quality Manager will assess the validity of the previous measuring results by reviewing the calibration data. The calibration records will note the condition of the equipment if it is received for calibration out of specification. PMC will determine the last acceptable parts inspected. All suspect products will be re-inspected by PMC. If the product has been shipped to the customer, a suspect product notification will be initiated noting all applicable traceability and reason for notification. Non-conforming product will be controlled per procedure 10.2.

4.1 Environmental Controls: All calibration at PMC is in the ambient condition of the location where the item is used.

4.2 Qualification of Outside Sources, Contracted Calibration and/or Measurements: PMC approves, evaluates and re-evaluates suppliers performing monitoring and measuring services per the requirements of procedure 8.4. A calibration certificate may be required in cases where calibration is performed by outside sources. This requirement may be met by a data sheet when like items are calibrated such as plug or ring gages by the same calibration source. This certificate includes the following minimum information: Identification of the equipment to which the certificate pertains, Measurement values of the equipment, Proof of traceability to NIST, Date of calibration, Date the next calibration is due, and the as received condition. Subcontractor’s equipment must meet the requirements of this procedure.

4.3 Software Control: When used in the monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application is confirmed. This is undertaken prior to initial use and reconfirmed as necessary. As applicable PMC stores all electronic data masters in the Quality Manager’s office. PMC backs up electronic data per procedure 7.5. All characteristics are verified by Quality during the inspection of parts. Any change to the electronic data is verified by QA during part inspection along with related characteristics.

4.4 Reference Equipment: Production departments may use personnel equipment or non-calibrated equipment for measurements as a reference at PMC manufactures risk. The use of “Reference” inspection equipment is to allow for basic set-up, in-process reference of dimensions, and/or to allow for an employee to use a trusted equipment as a guide for the operation under test. Reference equipment cannot be used for product acceptance. Reference equipment need not be noted on the Calibration recall list, as it is not an acceptance monitoring and measuring equipment, and is not under calibration or verification requirements as noted in AS9100 “D” element 7.5.1.2.

5.0 Records: Calibration Recall List, In-house Calibration data sheets, Calibration Work-Instructions, and Out of Tolerance form all controlled in compliance to PMC procedure 7.5 Control of Documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial Release AS9100 Rev. “D”	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Competence and Awareness

Procedure: 7.2.5

Page: 1 of 2

1.0 Purpose: This procedure establishes PMC's methods for determining the necessary competence for personnel performing work affecting product requirements, to provide applicable training or take other actions to achieve the necessary competence, evaluating the effectiveness of the actions taken, to ensuring employees are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives. This procedure covers training requirements as required by ISO 9001 and AS9100.

2.0 Responsibility: It is the responsibility of the General Manager or designee to establish the methods, competencies, and criteria for employee training.

3.0 Required Documentation: Training Plans, Job Descriptions, Group Training, and Employee Assessments.

4.0 Procedure: Each employee who performs a task, related to the customer, product or administration, is required to meet minimum standards that can be achieved through PMC training. Employee training is initiated within one week of employee start date.

a) Competence Determination and Training Program: Job interviews data, prior experience, *employee assessments*, and *employment tests* can be used by PMC to determine the employee's competence in their primary Job descriptions. All specific quality tasks are assigned based on competence, experience, education or training.

Training Plans: Training plans are created for "Production", "Office", and "Inspection" personnel and contain basic "need to know" PMC requirements. PMC uses these plans to establish basic competence. Most PMC employees are administered training plans unless determined to be unnecessary by General Manager.

Job Descriptions: Job descriptions are developed for the applicable jobs titles within PMC that relate to product realization, and applicable customer requirements. Job Descriptions note the competence requirements of the job described.

Group Training: *Group Training records* are used to document training topics addressed to multiple employees.

Employee Assessments: Evaluating the Effectiveness of the Training may be performed by:

1. Documented employee assessment data sheets, review of the work they performed based on work documents, observations, and/or performance reviews. This method of review will be traceable to actual work performed by either work order, task date, part and/or process number.

2. Review of employee's overall performance based on assigned tasks, product or process, and/or review of employees output for quality of work. This overall review need not be documented.

3. The assessments will be performed at least on a two-year basis from the employees hire date. The assessments will be used in a program for continuous improvement of training(s), and/or company improvement projects.

On the Job Training (OJT) may be used for developing an employee's productivity or skill. OJT records are used to document the duration of time the employee has performed the documented task or the minimum time requirements required to be capable of performing the documented task.

b) Quality Objectives training: To ensure employees are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives PMC conducts training sessions with employees. Employees are asked about the relevance and importance of their activities and how they contribute to the achievement of the quality objectives during the employee assessments. Quality Objective training can take place during Employee assessments.

c) Training Frequency: Training sessions are typically documented by the General Manager, Department Management or designee. PMC Training plans are updated on an "as needed basis", with employee assessments being conducted annually. Quality Policy and Quality Objective training is performed annually or when applicable changes are made. Employee training is initiated within one week of employee start date.

d) Training Matrix: A log of employee training may be maintained that notes the dates: Job Descriptions, On the Job Training, Quality Policy, Quality Objectives and Employee Assessments were performed. The Training Matrix can be a list of all employees and their training, or individual employee list of trainings performed. Training that is not determined to be Job Description specific may not be listed on the Training Matrix.

4.1 Awareness: PMC will ensure that persons doing work under PMC's control are aware of:

- a) the quality policy;
- b) relevant quality objectives;
- c) their contribution to the effectiveness of the QMS, including the benefits of improved performance;
- d) the implications of not conforming with the QMS requirements;

Title: Competence and Awareness

Procedure: 7.2.5

Page: 2 of 2

- e) relevant QMS documented information and changes thereto;
- f) their contribution to product or service conformity
- g) their contribution to compliance and product safety;
- h) the importance of ethical behavior.

The objective evidence of the awareness can be documented by training plans, assessments of the effectiveness of the training by task or job performance, group or individual training, “On the job” training, tests, or documented observations by supervision.

5.0 Records: Training Matrix, Training Plans, Employee Assessments, Group Trainings, Job Descriptions, all controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial Release AS9100 Rev. “D”	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Control of Documented Information

Procedure: 7.5

Page: 1 of 2

1.0 Purpose: This procedure establishes PMC's methods to control documented information required by the quality management system and by this International Standard. This applies to customer, supplier, and regulatory data as applicable required by AS9100 requirements.

2.0 Responsibility: The General Manager or designee (document control personnel) are responsible for compliance to this procedure.

3.0 Required Documentation: Master Documentation Log

4.0 Procedure - General: PMC's QMS will include documented information including:

- a) documented information required by this International Standard (Documents);
- b) documented information determined by PMC as being necessary for the effectiveness of the QMS (Documents);
- c) completed documents generated as a result of the process described in a document (Records)
- d) Electronic Records: An "electronic record" is any combination of text, graphics, data, audio, pictorial, or other information representation in digital form that is created, modified, maintained, archived, retrieved, or distributed by a computer system.

Note: Documented Information includes documents, records, and electronic records.

4.1 Creating and updating: When creating, and updating documented information, PMC will ensure appropriate:

- a) identification and description (e.g. title, revision, reference number). Documents at PMC will typically be identified using a document title and revision. Typically, revisions will be alphabetically controlled beginning with no change (NC), then proceeding to "A", "B", "C", and so on. While In certain situations, management may choose to use numeric or date revision.
- b) format (e.g. language, software version, graphics) and media (e.g. paper, electronic);
- c) and review and approval for suitability and adequacy (listed on Master Document List)

Approval implies authorized persons and approval methods are identified for the relevant types of documented information, as determined by PMC.

4.2 Control of Documented Information

4.2.1 Documents required by the QMS and by this International Standard will be controlled to ensure:

- a) it is available and suitable for use, where and when it is needed; This may include hard copy, electronic copies through shared databases, controlled distribution, and/or quality instructions.
- b) it is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity). Electronic documented information is back-up per methods listed below.

4.2.2 For the control of documents, PMC will address the following activities, as applicable:

- a) distribution, access, retrieval and use; Distribution and retrieval of documents is achieved through all controlled documents being available digitally on applicable PMC computer folders. The retrieval will be either to controlled PMC computer folders for current documents, and "Obsolete or Reference" determination for documents retained for information purposes that are not to the current document revision. Access and use will be based on employee task and need for the information as determined by management.
- b) storage and preservation, including preservation of legibility; All controlled quality documents will be stored in identified containers, cabinets, or boxes, to prevent damage or deterioration for hard copy documents. Scanned, e-documents, or digital data will be stored in controlled files that are backed up as noted in this procedure. All files will be traceable to customer data, job number, supplier, employee, product configuration and/or project data as determined by management.
- c) control of changes (e.g. version control); PMC ensures that changes and the current revision status of documents are identified, the last change made is documented on the Master Documentation Log.
- d) retention and disposition; All documented information is the property of PMC and are maintained through their life cycle. Quality Records are retained for 10 years to comply with governmental, contractual or Customer requirements, whichever is longer. The General Manager determines when the record is no longer active. Inactive records and files may be maintained and/or reproduced in any medium permitted by law or government regulation. All quality records are reviewed for customer disposition requirements, not to be less than 10 years.
- e) prevention of the unintended use of obsolete documented information by removal or by application of suitable identification or controls if kept for any purpose) PMC prevents the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose. The General Manager or document control personnel promptly retrieve and by remove the obsolete documentation from the applicable point of use.

Title: Control of Documented Information

Procedure: 7.5

Page: 2 of 2

Obsolete documents and data are destroyed, obsolete documents retained for any reason are identified as obsolete or reference, and controlled as needed or archived per customer requirements.

4.3 Documents of external origin. Documents of external origin determined by PMC to be necessary for the planning and operation of the QMS will be identified as appropriate, and be controlled. Customer controlled documents are placed in the job folder upon job completion and are not controlled for configuration after the contract has been completed. Public documents, such as industry standards, Mil-Specs, ANSI, ASME, ISO, etc. are purchased or updated as applicable using a document service or online resources as applicable.

4.3 Records. Documented information retained as evidence of conformity (records) will be protected from unintended alterations. All records that verify the integrity of PMC products are kept for a minimum of 10 years otherwise specified by contract. All records are maintained in a manner to preclude damage and deterioration. All records are available for review by PMC customers or regulatory authorities as applicable.

All supplier quality records concerning PMC product including material and processing certifications are retained for 10 years. PMC terms and conditions stipulate suppliers keep all records associated with PMC jobs for 10-years minimum unless extended by PMC or its customers. Special record retention or disposal requirements are flowed down to the as applicable.

Records may be in the form of any type of media, such as hard copy or electronic media.

4.3.1 Electronic Records: When using a system (recording, monitoring or data acquisition) that creates electronic records, the system shall meet the following requirements:

- The system must create electronic records that cannot be altered without detection
- The system software and playback utilities shall provide a means of examining and/or compiling the record data, but shall not provide any means for altering the source data.
- The system shall provide the ability to generate accurate and complete copies of records in both human readable and electronic form suitable for inspection, review, and copying.
- The system shall be capable of providing evidence the record was reviewed – such as by recording an electronic review, or a method of printing the record for a physical marking indicating review.
- The system shall support protection, retention and retrieval of accurate records throughout the record retention period. Ensure that the hardware and or software shall operate throughout the retention period as specified
- The system shall provide methods (e.g., passwords) to limit system access to only individuals whose authorization is documented.

4.4 Mistakes: Mistakes on records that affect or demonstrate product conformity will be single-line crossed out, correct entry made, and signed or initialed by the person making correction. Electronic record mistakes will be corrected by amending the incorrect data, approving the corrections, and saving the file with traceable identification such as date, traceability to customer, job, supplier, employee, department, process, design data, specification, employee, etc.

4.5 Back-up of Electronically Managed Documented Information. When documented information is managed electronically, it is backed-up using a cloud-based back-up service. Electronic documented information will be protected from corruption. All electronic documented information is stored in password protected files when needed. PMC backs up electronic data a minimum of once daily.

5.0 Records: Master Documentation Log is controlled in compliance to this procedure.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial Release AS9100 Rev. "D"	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Operational Planning and Control

Procedure: 8.1

Page: 1 of 2

1.0 Purpose: The purpose of this procedure is to define the methods that PMC will utilize to perform operational (production) planning. This process includes as required, customer, industry, and regulatory requirements. PMC plans, implement and controls the processes needed to meet the requirements for the provision of products and services, and to implement the actions required

2.0 Responsibility: The General Manager or designee is responsible for compliance to this procedure.

3.0 Required Documentation: Production travelers, Stamp and Authorities log, Inspection Reports, Control Plans

4.0 Procedure:

4.1 Determining the requirements for Products: PMC will plan for the production by determining the requirements for the products it produces. Determination of requirements for the products includes consideration of: personal and product safety; producibility and inspectability; reliability, availability and maintainability; suitability of parts and materials used in the product; selection of software needed for production; prevention, detection, and removal of foreign objects; handling, and packaging and preservation.

4.2 During planning, PMC establishes the criteria for:

- a) the processes, including machining operations and equipment needed, suppliers needed (including those needed for special process), logistics, etc.
- b) the acceptance of products and services, including inspection methods, process control as required (statistical process control, identification of key characteristics), certifications needed, etc.

4.3 Determining the resources needed to achieve conformity to the product. PMC determines these in order to meet on-time delivery of products.

4.4 Implementing control of the processes in accordance with the criteria: Control of the processes are carried out sequentially as documented on the approved traveler. Any additional customer or applicable traceability data associated with the operation must be documented as required. Employees must follow the documented work instructions and traveler sequence. Configuration, equipment, traceability, and inspection requirements must be verified. The operation needs to be signed, initialed or stamped off by the person performing the operation and must note the quantity of the product accepted, the quantity of the nonconforming product, the date the first article was completed.

4.5 Determining and keeping documented information to the extent necessary:

- a) Records of completed travelers and required production documentation are maintained to have confidence that the processes have been carried out as planned; Controlled process documents are filed by Customer and or Job number and maintain to establish confidence and objective evidence of planned operations. Inspection, test, and/or completed operations and the acceptance shall be documented. Completed parts are placed in stock, or shipped to customer per customer requirements. Travelers that are discovered to be incomplete for any reason are returned to the applicable department or management for correction and investigation as applicable before further processing.
- b) Records of completed travelers are maintained to demonstrate the conformity of products to their requirements.

4.6 Determining the processes and controls needed to manage critical items and key characteristics: PMC will implement production process controls when key characteristics or other critical items have been identified. PMC Control Plans will include 100% inspection of the critical item, criteria for acceptance and rejection, inspection and testing sequence operation, documented inspection results, identification of inspection instruments, and documentation and records required. Statistical process control will be applied when requested by customer

4.7 Engaging representatives of affected organization functions for operational planning and control: In order to plan production in the most effective method possible, PMC may choose to partner with applicable interested parties. This is in accordance with Confidentiality, Customer, and Regulatory requirements. The representatives may be functional employees of the affected organizations or interested parties

4.8 Determining the process and resources to support the use and maintenance of the products. Typically, PMC builds products to customer specifications and does not produce products that require maintenance or instructions for "use".

4.9 Determining the products and services to be obtained from external providers. PMC planning personnel will determine the External Providers (Suppliers) that are necessary to produce products per Customer, regulatory, and **procedure 8.4** requirements.

4.10 Establishing the controls needed to prevent the delivery of nonconforming products and services to the customer. PMC includes as applicable, inspection, testing, document, and product verification.

Title: Operational Planning and Control:

Procedure: 8.1

Page: 2 of 2

The above requirements are determined by planning personnel based on customer requirements. Planning and Quality personnel will ensure all applicable requirements are sequentially planned to meet requirements at acceptable risk and on-time as determined by management. PMC maintains and retains all applicable documented information. This activity can be referred to as project management.

4.11 Configuration management: PMC plans and controls the process for configuration management as appropriate to PMC and product to ensure the visibility and control of physical and functional attributes throughout the product lifecycle. This process will:

- a) control product identity and traceability to requirements (typically part number and revision level), including the implementation of identified changes;
- b) ensure that the documented information (e.g., traveler and all associated production documentation) is accurate and consistent with the actual attributes of the products and services.

PMC has established, implemented and maintains a Configuration Management process appropriate to the product that includes: Configuration Management Planning: PMC configuration management planning is controlled by unique job numbers which include customer requirements and product information, and quality requirements throughout all phases of product realization. The Configuration management process ensures all applicable quality records are traceable to the customer purchasing documents, Supplier documents when applicable, internal company records when applicable, etc.

4.12 Product safety: PMC will plan, implement and control the processes needed to assure product safety during the entire product life cycle, as appropriate to PMC and the product. PMC will consider: When mandated by customer contract or regulatory agency, required safety practices, safety related documentation, training, and or policies will be implemented and documented as needed. Product Safety will also be reviewed for processes and products with prior safety concerns. "Like Products or Processes" for products or services will be reviewed to determine safety concerns based on quality history. Training, equipment, document or process changes will result in any process or product safety concern noted to mitigate future safety concerns. Examples of these processes include: assessment of hazards and management of associated risks, management of safety critical items; analysis and reporting of occurred events affecting safety; communication of these events and training of persons.

4.13 Control of Work Transfers: This activity is not typically used at PMC. Any work transfers will be approved by Customer before transfer. The control of suppliers and work at suppliers' facilities is controlled by procedure 8.4.

5.0 Records: Completed travelers, stamp and authorities log, control plans, are controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision "D".	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Risk Management:

Procedure: 8.1.1

Page: 1 of 2

1.0 Purpose: The purpose of this procedure is to define the methods PMC shall establish, implement and maintain the Risk Management process

2.0 Responsibility: The General Manager or designee is responsible for compliance to this procedure.

3.0 Required Documentation: Risk meetings, Failure Mode and Effects Analysis (FMEA) reports, Improvement Log

4.0 Definitions:

- **Risk:** A negative effect of uncertainty.
- **Opportunity:** A positive effective of uncertainty.
- **Uncertainty:** A deficiency of information related to understanding or knowledge of an event, its consequence, or likelihood. (Not to be confused with measurement uncertainty.)
- **Risk Assessment:** a systematic investigation and analysis of potential risks, combined with the assignment of severities of probabilities and consequences. These are used to rate risks in order to prioritize the mitigation of high risks.
- **Risk Mitigation:** a plan developed with the intent of addressing all known or possible risks and preventing their occurrence.
- **Failure Mode Effects Analysis (FMEA):** a specific risk tool which ranks risks by severity, likelihood of occurrence, and detection or detectability probability. A combination of these three factors will assign the risk a "Risk Priority Number" that will determine whether management considers the risk to be unacceptable or acceptable and therefore take action. The RPN acceptability is determined by the General Manager.

5.0 Procedure

5.1 Actions to Address Risks and Opportunities related to PMC's organization:

5.1.1 When planning for the quality management system, PMC considers the risks and opportunities relative to:

- external and internal issues that are relevant to PMC's purpose and its strategic direction and that affect its ability to achieve the intended result(s) of its quality management system.
- the interested parties that are relevant to the quality management system;
- the requirements of these interested parties that are relevant to the quality management system.

An organizational risk assessment will be completed a minimum of once per calendar year by facilitating an Organizational risk meeting or a Strengths, Weaknesses, Opportunities, and Threats analysis (as determined by Management). Risks will be entered on to a FMEA to determine the level of the risk and if management should take action. Opportunities that Management wishes to capitalize on will be added to the Improvement Log. Actions taken to address risks and opportunities will be proportionate to the potential impact on the conformity of products.

PMC determines the risks and opportunities that need to be addressed to:

- a) give assurance that the quality management system can achieve its intended result(s);
- b) enhance desirable effects;
- c) prevent, or reduce, undesired effects;
- d) achieve improvement.

5.1.2 PMC will plan:

- a) actions to address these risks and opportunities (typically by implementing preventive actions of improvement activities documented on the Improvement Log);
- b) how to:
 1. integrate and implement the actions into its quality management system processes;
 2. evaluate the effectiveness of these actions.

5.2 Operation risk management: PMC will plan, implement and control a process for managing operation risks to the achievement of applicable requirements, which includes as appropriate to PMC and the products and services:

- a) assignment of responsibilities for risk management, will be based on the task. Contract review Risk will be based on detailed checklist, contract review sheets, and/or other data. Planning will be based on Risk Assessments and FMEAs of main and support processes (as determined by management) and/or customer established Risk control requirements.

Title: Risk Management:

Procedure: 8.1.1

Page: 2 of 2

- b) definition of risk assessment criteria (e.g., likelihood, consequences, risk acceptance); Will be determined based on Risk Assessments and FMEAs of key and support processes and/or customer established Risk control requirements.
- c) identification, assessment and communication of risks throughout operations; This will be accomplished through Risk meetings, postings of Risk Assessments and FMEAs of key and support processes and/or customer established Risk control requirements.
- d) identification, implementation and management of actions to mitigate risks that exceed the defined risk acceptance criteria; This will be accomplished through Risk meetings, postings of Risk Assessments and FMEAs of key and support processes and/or customer established Risk control requirements.
- e) acceptance of risks remaining after implementation of mitigating actions. This will be accomplished through Risk meetings, postings of Risk Assessments and FMEAs of key and support processes and/or customer established Risk control requirements.

Within aviation, space and defense, risk is generally expressed in terms of the likelihood of occurrence and the severity of the consequences. These criteria are addressed on FMEA reports. Specific customer risks and mitigation will be included as applicable when required by contract. PMC can implement Risk management techniques through employee department Risk meetings, FMEAs, Quality review of processes or products to develop Risk assessments based on Pareto concepts, percent defect, or financial quality data.

5.2 Risk Mitigation: Risks are identified as part of the management processes by processes, equipment, and/or as determined by customers. Additional risks may be identified by any employee at any time.

Each main process is reviewed in detail through process Risk meetings, analysis and FMEAs. A formal risk meeting for each main operational process (identified within Quality Manual) is performed a minimum of every two years or as significant changes to these processes occur. These documents include the identification and mitigation plans for risks determined to be unacceptable. PMC management will review these risks and acts to minimize them. Risks identified with unacceptable Risk Priority Numbers will be added to the Improvement Log so that preventive action or other improvement activities can mitigate the risk.

5.3 Management of Opportunities: PMC actively reviews quality system processes, risk, customer concerns, internal rejections, new industry concepts, and business opportunities to enhance its quality, financial, and process efficiencies. Examples of these management opportunity activities are the SWOT analysis, management review, list of opportunities and actions for fulfillment, and/or continual improvement plans or log. Discussing and analyzing opportunities shall be done by top management. If made part of the management review activities, these shall be recorded in the management review records. To help determine which opportunities should be pursued, PMC will create an Opportunity List which may be used to conduct an “opportunity pursuit assessment.” This list will identify potential positive opportunities by their likelihood of success and potential benefit. The opportunity pursuit assessment is conducted by any of the following as applicable:

- Identifying the opportunity.
- Identifying the process or element for which the opportunity most likely falls under.
- Assigning a remark or task to achieve the opportunity goals.
- Assigning a benefit assessment to rationalize the opportunity and the resources to achieve the opportunity goals.

The opportunities list will be reviewed at management review for status and additional remarks as needed by management.

6.0 Records: Risk meetings, Failure Mode and Effects Analysis (FMEA) reports, Improvement Log all controlled in compliance to PMC procedure 7.5 Control of documented Information.

7.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision “D”.	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Prevention of Counterfeit Parts

Procedure: 8.1.4

Page: 1 of 3

1.0 Purpose: To establish a process for the acquisition and control of authentic products and the control of counterfeit parts prevention suspect counterfeit parts. This procedure applies to all products and materiel that are used for the product realization process.

2.0 / Responsibility: The Quality Manager or designee will be responsible for all requirements of this procedure.

3.0 Definitions:

- **Counterfeit Parts:** A product produced or altered to imitate or resemble a product without authority or right to do so, with the intent to mislead or defraud by passing the imitation as original or genuine. (Suspect unapproved until proven as counterfeit). Parts which do not contain the proper internal construction consistent with the ordered part. (Die, manufacturer, wire bonding, etc.) Parts which have been used, refurbished or reclaimed, but are represented as new product. Parts which have different package style or surface plating/finish than the ordered parts. Parts which have not successfully completed the Original Component Manufacturer's (OCM)'s full production and test flow, but are represented as completed product. Parts sold as up screened parts which have not successfully completed up screening. Parts sold with modified labeling or markings intended to misrepresent the parts' form, fit, function, or grade.
- **Approved Supplier:** Suppliers that are approved by the Customer or PMC approval process; determined to be a trusted source that will reliably provide authentic and conforming materiel, and entered on the register of approved suppliers.
- **Certificate of Authenticity (C of A):** A statement to the effect that all materiel items listed above furnished on this contract are genuine, new and unused unless otherwise specified in writing herein; are suitable for the intended purpose; are not defective, suspect, or counterfeit; have not been provided under false pretenses; and have not been materially altered, damaged, deteriorated, or degraded.
- **Certificate of Conformance (C of C, CoC):** A document provided by a supplier formally declaring that all buyer purchase order requirements have been met. The document may include information such as manufacturer, distributor, quantity, lot and/or date code, inspection date, etc., and is signed by a responsible party for the supplier.

4.0 Procedure:

The method to control counterfeit parts include Supplier control (including the PO to suppliers or applicable flow-down), employee training, and a detailed counterfeit checklist that lists counterfeit controls and actions to take. Typically, PMC determines item acceptability of purchased items through visual inspection of product, packaging, and corresponding certification documentation.

4.1 Purchasing:

During contract review, proposal and program planning efforts, PMC as applicable will assess the long-term availability of authentic parts and part sources for production and support of systems. The procurement/purchasing processes shall:

- Assess potential sources of supply to determine their likelihood of delivering authentic and conforming materiel. Assessment actions may include surveys, audits, review of product alerts, and review of supplier quality data to determine past performance.
- Maintains a register of approved suppliers, including the scope of the approval, to assure the highly likely supply of authentic and conforming materiel.
- When possible, procure directly from original manufacturers, authorized suppliers, or other legally authorized sources on the approved supplier/source register/list. When the procurement item/material is not available from the authorized chain, then PMC shall contact the customer for material/product procurement disposition.
- Authorized distributors should provide product acquired through agreements with original manufacturers. If a distributor cannot provide product in this manner, then for the purpose of this document, then PMC shall contact the customer for material/product procurement disposition.

PMC buyers ensure that distributors have established documented processes and the financial means to support any contractual guarantees expected. Purchase agreements should include product certifications and contractual remedies such as financial penalties if inaccuracies are found.

4.1.2 Purchasing Information. PMC flows-down as applicable requirements for the following to mitigate the procurement of counterfeit products:

- **Product traceability.** Full traceability for the materiel being purchased, including names and addresses of prior sources (if any).

Title: Prevention of Counterfeit Parts

Procedure: 8.1.4

Page: 2 of 3

- **Tests and inspections.** The seller should be notified of any applicable tests and inspections that they will be required to perform to assure product authenticity, including development of accept/reject criteria and qualification of test/inspection personnel.
- **Quality management system.** The seller should be required to comply with, and/or be certified to, an appropriate higher-level quality standard (flowed down on PMC quality flow-down).
- **Required documentation.** The seller should be provided with clear and specific instructions concerning deliverable documentation. Documentation requirements, including certificates of conformance and test/inspection data, should be included in the contract terms and conditions.

4.2 Certificate of Conformance and Traceability: The seller shall approve, retain, and provide copies of Certificates of Conformance (CoC). Manufacturer CoCs shall, at minimum, include the following:

- Manufacturer name and address;
- Manufacturer and/or buyer's part number and dash number, group number, or similar;
- Commodity or item level identification for the item(s) such as date codes, lot codes, heat codes, serializations, unique item identifiers, or batch identifications;
- Signature or stamp with title of seller's authorized personnel signing the certificate.

4.3 Verification of Purchased Product

Examples of verification actions may include: review of data deliverables, receiving inspection, visual inspection (including research on marking requirements, Item Unique Identification (IUID) scan, testing, non-destructive evaluation and destructive testing).

4.3.1 Documentation and Packaging Inspection. PMC should provide an unbroken chain of documentation (certifications, packing slips, etc.) tracing the movement of the parts back to the OCM, and certification that the parts have not been salvaged, reclaimed, otherwise used, or previously rejected for any reason. Any Certificates of Conformance or other documentation should be examined for originality and applicability to the delivered material, including: Lot and/or date codes on the packaging do not match the lot and/or date codes on the parts. Manufacturer's logo or label is absent, or does not match that shown on their website or on previous shipments. Poor use of English, misspelled words, alterations, or changes to the documentation. Bar coding does not match the printed part number. Package materials are inconsistent with the description on the datasheet. If there is an elevated concern for product integrity, it may be possible to verify with the OCM that date, lot codes, reel sizes, and quantities listed on the documentation are valid.

4.3.2 Visual Inspection. Visual examinations should be performed on 100% of incoming parts or a representative sample as determined by PMC Management. Addition tests may be required as determined by the Quality Manager or Customer.

4.4 Control of Suspect or Confirmed Counterfeit Parts: If counterfeit product is found or suspect, the following steps should be implemented: Physically identify the parts as suspect/counterfeit product (e.g., tag, label, mark). Physically segregate the parts from acceptable non-suspect parts and place in quarantine. Quarantine should consist of physical barriers and controlled access. Do not return the parts to the supplier for refund, replacement, etc., except under controlled conditions which would preclude resale of the suspect counterfeit parts into the supply chain, and to allow the supplier to conduct internal investigation. Confirm the authenticity of the parts. This may include further part-level testing, communications with the part's supposed OCM, third-party analysis, etc. Upon confirmation that a part is counterfeit, identify and place on "Hold" all potential additional counterfeit parts in storage and installed in product pending disposition by appropriate authorities. Suspect counterfeit parts should not be handled as scrap material. It must be contained and "Bonded" as noted above until applicable authorities are notified and disposition by the applicable regulatory agency(s).

4.5 Reporting

The documented processes shall assure that all occurrences of counterfeit parts are reported, as appropriate, to internal organizations, customers, government reporting organizations such as:

- a) GIDEP, industry supported reporting programs
- b) FAA Suspect unapproved parts. FAA maintains a database of counterfeit, suspected unapproved parts and high-risk items (FAA Unapproved Parts Notifications (UPNs), listed by year). Data can be submitted by anyone by calling their hotline, e-mail or via hard copy.
- c) Customer Representative noting supplier, part number, and pertinent traceability information.
- d) Local, State, or Federal Regulatory (such as the FBI, Department of Commerce, etc.) agencies noting supplier, part number, and pertinent traceability information.

Title: Prevention of Counterfeit Parts

Procedure: 8.1.4

Page: 1 of 3

5.0 Records: Controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision "D".	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Requirements for Products and Services

Procedure: 8.2

Page: 1 of 2

1.0 Purpose: This procedure establishes the methods used by PMC to determine the requirements of the customer relating to the product, and the review of the requirements by means of a Determining the requirements related to products and services. This procedure covers all Customer contracts received by PMC as required by AS9100.

2.0 Responsibility: The General Manager or designee are responsible for compliance to this procedure.

3.0 Required Documentation: Contract Review Form, Contract Review Stamp, Contract Review Risk Checklist

4.0 Procedure:

4.1 Determining the requirements related to products: PMC typically receives Request for Quotes (RFQ) from Customers which list the requirements related to products. When determining the requirements for the products to be offered to customers, PMC will ensure that: All customer information is reviewed by the General Manager and other applicable managers and personnel (as needed) to determine whether PMC has the capability and capacity to produce the requested product in a manner that meets all specified requirements. PMC ensures:

- a) the requirements for the products and services are defined, including:
 - 1) any applicable statutory and regulatory requirements;
 - 2) those considered necessary by PMC;
- b) PMC can meet the claims for the products it offers;
- c) special requirements of the products are determined;
- d) operation risks (e.g., new technology, ability and capacity to provide, short delivery time frame) have been identified.

4.2 Review of requirements for products and services: PMC will ensure that it has the ability to meet the requirements for products and services to be offered to customers. PMC will conduct a review before committing to supply products to the customer, to include:

- a) requirements specified by the customer, including the requirements for delivery and post-delivery activities;
- b) requirements not stated by the customer, but necessary for the specified or intended use, when known;
- c) requirements specified by PMC;
- d) statutory and regulatory requirements applicable to the products and services;
- e) contract or order requirements differing from those previously expressed.

4.2.1 This review will be coordinated with applicable functions of PMC (i.e. Planning, Production, Purchasing, Inspection personnel, etc.).

4.2.2 If upon review PMC determines that some customer requirements cannot be met or can only partially be met, PMC will negotiate a mutually acceptable requirement with the customer.

4.2.3 If any requirement is not clear, the customer must be notified for clarification. PMC reviews the contract to make certain that PMC has the capability to meet the requirements and the capacity to meet the requirements in the time frame required.

4.2.4 Contracts are reviewed by the General Manager and other applicable managers and personnel (as needed) to determine whether PMC has the capability and capacity to produce the requested product in a manner that meets all specified requirements.

4.2.5 The Contracts may be accepted, rejected, accepted with modifications (if agreed by Customer), or placed on hold until notification by the customer.

4.2.6 PMC will ensure that contract or order requirements differing from those previously defined are resolved.

The customer requirements will be confirmed by PMC before acceptance, when the customer does not provide a documented statement of their requirements, PMC will not accept the order.

4.2.7 PMC will retain documented information, as applicable:

- a) on the results of the review; PMC may document / evidence the Contract Review activities on a Contract Review form and or on Customer Contract record using a Contract Review stamp.
- b) on any new requirements for the products and services. New requirements will start this process over as a new review to ensure conflicts are noted and resolved.

4.3 Changes to requirements for products and services: PMC will ensure that relevant documented information is amended, and that relevant persons are made aware of the changed requirements, when the requirements for products and services are changed. All changes will start this process over as a new review to ensure conflicts are noted and resolved.

Title: Requirements for Products and Services

Procedure: 8.2

Page: 2 of 2

5.0 Records: Contract Review Form, Contract Review Stamp, Contract Review Risk Checklist are all controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision "D".	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Purchasing

Procedure: 8.4

Page: 1 of 3

1.0 Purpose: The purpose of this procedure is to provide a procedure to ensure that purchased product conforms to specified purchase requirements. The type and extent of control applied to the External Providers (Supplier) and the purchased product is dependent upon the effect of the purchased product on subsequent product realization or the final product.

2.0 Responsibility: The General Manager or designee are responsible for compliance to this procedure.

3.0 Required Documentation: Approved Supplier List and Purchase Order, Supplier Survey, Quality Clauses

4.0 Procedure: PMC is responsible for the conformity of all products purchased from suppliers, including product from sources defined by the customer. PMC evaluates and selects suppliers based on their ability to supply product in accordance with documented requirements. PMC's criteria for selecting suppliers is based on their ability to supply product or perform services per PMC and customer requirements.

4.1 Controls to be applied to externally provided processes, products, and services. When products and services purchased from suppliers are intended for incorporation into PMC's products, they are controlled per this procedure, PMC does not procure products from suppliers and send directly to the customer from supplier. All special processes that are provided by a supplier are controlled by this procedure.

4.2 Selecting, Evaluating, and Re-evaluating Suppliers: PMC is responsible for the conformity of all products purchased from suppliers, including product from sources defined by the customer. PMC evaluates and selects suppliers based on their ability to supply product in accordance with documented requirements. PMC's criteria for selecting suppliers is based on their ability to supply product or perform services per PMC and customer requirements. PMC's criteria for evaluating and reevaluating each supplier is by one of the following ways (or more as applicable):

- 1) **Quality Survey:** A Supplier Survey of the suppliers' QMS, Process and/or capabilities to meet PMC and customer flow down requirements is performed every 2 years on suppliers that do not have an Accredited or Certified QMS or Process.
- 2) **3rd Party Certification:** Certification review (Online, Electronic, Fax or Hard Copy verification) of the Suppliers certified QMS or Process are performed within the first month after the current certification expiration date. This is to ensure adequate time for QMS or Process re-evaluation. Online verification of supplier status through authorized websites can be used as evidence of approval and re-approval. Hard copies of the supplier certifications need not be retained.
- 3) **Customer Mandate:** PMC and all suppliers must use a customer approved supplier list when required by customer contract.
- 4) **Quality History:** Analysis of the supplier's product or process through receiving inspection, testing, certification review, etc. Previous history; where the supplier's Quality data is acceptable to the customer as determined by PMC.
- 5) **One-time or limited use suppliers (10 times or less):** In situations in which a supplier is going to be used one time only or limited time use the purchasing agent may bypass the standard process of listing the supplier on the approved supplier list, until a decision has been made by Quality or Purchasing Management to retain the supplier as a PMC approved supplier. The as "one-time use" or "limited time use" and the supplier will be approved on the basis of 3rd Party Certification, Customer Mandate, Quality product or service acceptance, Recommendation from a trusted source, and/or Prior Quality History with PMC. The suppliers must have all incoming shipments verified for acceptance by Quality Manager or inspection personnel. Any quality or performance issues with "one-time use" or "limited time use" suppliers will result in disapproval or conditional approval based on the determination of the Quality Manager or his designee.

4.3 Approved supplier register. PMC maintains a register of suppliers that includes approval status (e.g., approved, conditional, disapproved) and the scope of the approval (e.g., product type, process, or commodity).

4.4 Periodic review of supplier performance: PMC reviews the performance of its suppliers including process, product conformity, and on-time delivery performance. This occurs during the periodic monitoring of the Quality Objectives. Actions are taken by management when goals are not achieved.

4.5 Dealing with suppliers that do not meet requirements: Suppliers with substandard performances are subject to review causing conditional approval or disapproval status on the Approved Supplier Register.

If the supplier's status changes to conditionally approve those suppliers may only be used with the approval of the General Manager or Quality Manager. It is the Quality Manager's responsibility to assure that the conditions required for re-approval are met and then the supplier's status can be changed back to approved on the Approved Supplier Quality Sheet. If the conditions are not met, the supplier is disapproved.

The minimum acceptable supplier quality rate and on-time delivery rate is listed on the Quality Objectives. This is based on a minimum of 20 uses in one year. If a supplier does not meet minimum requirements their status will be reduced from Approved to Conditional, Conditional Suppliers can only be used on Jobs in which they are a Customer approved source for that Customer. If the Conditional status doesn't improve within 12 months they will be sent corrective action to address the issues. If the corrective action is not

Title: Purchasing

Procedure: 8.4

Page: 2 of 3

satisfactory of effective the Supplier will be removed from the ASL and only used for jobs in which they are a customer required source.

4.6 Customer-approved Special Process Sources. PMC ensures where required that both the organization and all suppliers use customer-approved special process sources.

4.7 Approval Status. The General Manger, Quality Manager, or Purchasing Agent have the responsibilities and authority for the approval status decision, changes of the approval status and conditions for a controlled use of suppliers depending on the supplier's approval status.

4.8 Supplier Risk. PMC determines and manages risks when selecting and using suppliers. All risks associated when selecting and using suppliers are evaluated by the General Manger, Quality Manager, or Purchasing Agent. Risks as determined by management will be noted on the Purchasing Risk Checklists, purchasing FMEA, and flowed-down to PMC personnel on the Traveler.

4.9 Purchasing Information: *Quality Clauses:* All purchase orders issued to suppliers note the applicable terms and conditions or reference the applicable terms and conditions clauses from a list submitted to the supplier. PMC issues purchase orders to suppliers that contain data clearly describing the product ordered, purchasing information describes the product to be purchased, including where applicable:

- a. The processes, products, and services to be provided including the identification of relevant technical data (e.g. specifications, drawings, process requirements, work instructions);
- b. the approval of:
 1. products and services;
 2. methods, processes, and equipment;
 3. the release of products and services;
- c. competence, including any required qualification of persons;
- d. the suppliers' interactions with the organization;
- e. control and monitoring of the suppliers' performance to be applied by the organization;
- f. verification or validation activities that the organization, or its customer, intends to perform at the suppliers' premises;
- g. design and development control; (when applicable)
- h. special requirements, critical items, or key characteristics;
- i. test, inspection, and verification (including production process verification);
- j. the use of statistical techniques for product acceptance and related instructions for acceptance by the organization;
- k. the need to:
 - implement a quality management system;
 - use customer-designated or approved suppliers, including process sources (e.g., special processes);
 - notify the organization of nonconforming processes, products, or services and obtain approval for their disposition;
 - prevent the use of counterfeit parts
 - notify the organization of changes to processes, products, or services, including changes of their suppliers or location of manufacture, and obtain the organization's approval;
 - flow-down to suppliers of applicable requirements, including customer requirements;
 - provide test specimens for design approval, inspection/verification, investigation, or auditing;
 - retain documented information, including retention periods and disposition requirements;
- l. the right of access by the organization, their customer, and regulatory authorities to the applicable areas of facilities and to applicable documented information, at any level of the supply chain;
- m. ensuring that persons are aware of:
 - their contribution to product or service conformity;
 - their contribution to product safety;
 - the importance of ethical behavior.

Title: Purchasing

Procedure: 8.4

Page: 3 of 3

PMC ensures the adequacy of specified purchase requirements prior to their communication to the supplier.

4.10 Verification of Purchased Product: PMC has established and implemented the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements by any of the following: inspection of products upon receipt, objective evidence of the quality of the product from suppliers (e.g. accompanying documentation, certificate of conformity, test reports, etc.). PMC reviews the required documentation and supplier certification records.

Customer Verification of Subcontracted Product: Where specified in the contract, PMC’s customer or the customer's representative is afforded the right to verify product at the subcontractor's premises at any level of the supply chain. Customer verification activities performed at any level of the supply chain does not absolve PMC of its responsibility to provide acceptable products and to comply with all requirements

Purchased product is not be used or processed until it has been verified as conforming to specified requirements, unless it is released under positive recall instructions. Typically, PMC does not engage in positive recall activities. Where purchased product is released for production use pending completion of all required verification activities, it is identified and recorded to allow recall and replacement if it is subsequently found that the product does not meet requirements. It may not be released to customer until completion of all required verification activities is completed.

4.10.1 Validation. Where PMC utilizes test reports to verify purchased product, PMC will evaluate the data in the test report to confirm that products meets requirements. This will be completed by either verifying that the process or material is within the acceptable limits listed on the supplier certification OR, if the limits are not listed on the certificate provided by the supplier, then the actuals listed on the certificate must compared to the applicable specification and verified for acceptability. PMC validates test reports for raw material when required by customer contract. If raw material is identified as a critical item (I.e. fracture/safety critical), an independent validation by a material testing service will be performed.

4.11 Corrective Action: All suppliers are subject to corrective action in accordance to procedure 10.2. Any supplier with continuing substandard performance and who is unwilling or unable to execute acceptable corrective action is subject to removal from the ASL.

5.0 Records: Approved Supplier List and Purchase Order, Supplier Survey, Quality Clauses are all controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision “D”.	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Production

Procedure: 8.5

Page: 1 of 4

1.0 Purpose: This procedure establishes the methods and processes needed and used by PMC to implement production activities under controlled conditions.

2.0 Responsibility: The General Manger or designee are responsible for compliance to this procedure.

3.0 Required Documentation: Traveler

4.0 Procedure:

4.1 Control of Production. PMC implements production under controlled conditions. Controlled conditions include:

4.1.2 Controlled conditions include:

- a) Travelers controlled via Material Resource and Planning (MRP) system and corresponding documented information (digital product definition data, drawings, parts lists, materials, and process specifications) describe the characteristics of the products to be produced, the services to be provided, or the activities to be performed.
- b) Travelers and verification (inspection) documented information (reports) for each Customer job define the results to be achieved.

4.1.3 Suitable monitoring and measuring resources: PMC ensures that the control of production includes the availability and use of suitable monitoring and measuring resources.

4.1.4 Implementation of monitoring and measurement activities: PMC ensures the implementation of monitoring and measurement activities at appropriate stages to verify that criteria for control of processes or products, and acceptance criteria for products and services, have been met. PMC will ensure that inspection operations are planned on the traveler. These operations will note as applicable, the quantity, inspection criteria, and the method of inspection. It will note in-process and final inspections as required. Inspection of the production operations may be documented on the Traveler without creating inspection reports. PMC will ensure that inspection documentation includes:

- criteria for acceptance and rejection;
- where in the sequence verification operations are to be performed;
- measurement results to be retained (at a minimum an indication of acceptance or rejection);
- any specific monitoring and measurement equipment required, and instructions associated with their use;

When sampling is used as a means of product acceptance, the sampling plan is justified on the basis of recognized statistical principles. (i.e., matching the sampling plan to the criticality of the product or the process capability).

4.1.5 PMC will ensure the use of suitable infrastructure and environment for the operation of processes. This will be verified through equipment maintenance, facility maintenance, temperature, facilities for production. material, storage, inspection, administration, etc.

4.1.7 PMC ensures the appointment of competent persons, including any required qualification; will be controlled per procedure 7.2.5.

4.1.8 Special processes: The validation, and periodic revalidation, of the ability to achieve planned results of the processes for production, where the resulting output cannot be verified by subsequent monitoring or measurement; these processes can be referred to as special processes and will be verified during production through in-process inspection, process monitoring, and controlled tooling, etc. The processes are carried out by qualified suppliers to ensure that the specified requirements are met. PMC define the significant operations and parameters in the process to be controlled during production in the purchase order and / or attachments as applicable. Records are maintained for qualified processes, equipment and personnel, as appropriate

Suitable equipment can include product specific tools (e.g., jigs, fixtures, molds) and software programs.

4.1.9 Human error prevention: PMC ensures the implementation of actions to prevent human error: This will be accomplished through training, detailed work instructions, travelers, inspection and verification throughout the production processes, and by analysis of prior quality data and/or employee and management meetings for process and Risk detection.

4.1.10 Implementation of release, delivery and post-delivery activities: PMC will implement planned arrangements, at appropriate stages, to verify that the product and service requirements have been met. The planning shall note inspection/verification points at appropriate stage that must be documented to ensure product compliance.

PMC will implement planned arrangements, at appropriate stages, to verify that the product and service requirements have been met. The planning shall note inspection/verification points at appropriate stage that must be documented to ensure product compliance.

When product is released for subsequent production use pending completion of all required measurement and monitoring activities, it

Title: Production

Procedure: 8.5

Page: 2 of 4

will be identified and recorded to allow recall and replacement if it is later found that the product does not meet requirements.

The release of products and services to the customer will not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, as applicable, by the customer.

PMC will retain documented information on the release of products and services. The documented information will include:

- a) evidence of conformity with the acceptance criteria; Inspections. Verification of certifications, testing, witness verification of acceptance criteria.
- b) traceability to the person(s) authorizing the release by initials, signature or traceable stamps.

When required to demonstrate product qualification, PMC will ensure that retained records provide evidence that they meet the defined requirements.

PMC will ensure that all documented information required to accompany the products and services are present at delivery. PMC inspects all parts to the required configuration and assure that they meet the Traveler instructions per PMC and customer requirements. PMC verifies that all manufacturing planning has been completed and accepted to the customer requirements. Post-delivery activities controlled as required per PMC Quality Manual.

4.1.11 Establishment of criteria for workmanship (e.g., written standards, representative samples, illustrations): This will be noted on the traveler and inspection documentation.

4.1.12 Accountability for all product during production (e.g., parts quantities, split orders, nonconforming product): This will be accomplished on the traveler. Production Operations are carried out sequentially as documented on the approved Traveler. Any additional customer or applicable traceability data associated with the operation must be documented as required. Employees must follow the documented work instructions and traveler sequence. Configuration, equipment, traceability, and inspection requirements must be verified. The operation needs to be signed, initialed or stamped off by the person performing the operation and must note the quantity of the product accepted, the quantity of the nonconforming product, the date the first article was completed.

4.1.13 Control and monitoring of identified critical items, including key characteristics: This will be controlled and monitored by executing the PMC control plans as defined in procedure 8.1. If the results deviate from the control plans, management will act as necessary.

4.1.14 Determination of methods to measure variable data (e.g., tooling, on-machine probing, inspection equipment): This information will be determined during inspection planning during the production planning process.

4.1.15 Identifying in-process inspection/verification points when adequate verification of conformance cannot be performed at later stages: This will be determined during production planning and will consider machining operations, special processes, cleaning, assembly, etc.

4.1.16 Evidence that all production and inspection/verification operations have been completed as planned, or as otherwise documented and authorized: Traveler buy-off and data correction. Production Operations are carried out sequentially as documented on the approved Traveler. Any additional customer or applicable traceability data associated with the operation must be documented as required. Employees must follow the documented work instructions and traveler sequence. Configuration, equipment, traceability, and inspection requirements must be verified. The operation needs to be signed, initialed or stamped off by the person performing the operation and must note the quantity of the product accepted, the quantity of the nonconforming product, the date the first article was completed.

If the previous operation was not properly completed, operations may not proceed unless approved and controlled per Control of Production Process and Data Changes (below). Operator must notify supervision if configuration, quantity, prior operation, unclear instructions, or other error or nonconformance is noted. Supervision must correct or disposition error or nonconformance prior to proceeding with production. Persons Authorized to make the changes are the Production Manager, Quality Manager or a designee approved by either Manager, and must be re-inspected to ensure acceptability to customer requirements.

4.1.17 Prevention, detection and removal of foreign objects: This will be controlled per procedure 8.5.4.1

4.1.18 Control and monitoring of utilities and supplies (e.g., water, compressed air, electricity, chemical products): to the extent they affect conformity to product requirements. PMC will review the utilities and supplies through the manager in charge of facilities to determine if any utility or supplies will affect conformity to product acceptance or requirements. Any negative concern will be corrected and/or brought to upper management's attention for correction.

Title: Production

Procedure: 8.5

Page: 3 of 4

4.1.19 Positive recall: The identification and recording of products released for subsequent production use pending completion of all required measuring and monitoring activities, to allow recall and replacement if it is later found that the product does not meet requirements. While typically not part of PMC's production process; if product is released for subsequent production use pending completion of all required verification activities, it is identified and recorded to allow recall and replacement if it is subsequently found that the product does not meet requirements. It may not be released to customer until completion of all required verification activities is completed.

4.2 Production Equipment, Tools and Programs are validated and maintained prior to use: PMC ensures that tooling, software programs and equipment can produce the results of its intended production use prior to its release. This is typically validated through the inspection of the product produced. (See Production Process Verification below). If initial review of the tooling, programs and equipment shows they can produce the results intended they are used for production. Tool validation is ensured by the tools condition, prior quality history and the quality of the product it produces.

4.2.1 Control of Production Equipment, Tools and Numerical Control (N.C.) Programs: Production equipment, tools, and programs are controlled and maintained as follows:

1. Production Equipment – Significant equipment used in the production process are maintained in acceptable operating condition. Equipment maintenance forms are completed as required to demonstrate production equipment maintenance.
2. Tools – This includes tooling, fixturing, jigs, etc. Control includes visual inspection of tools for nicks, dings, missing or broken components, and other damage. An audit of the tooling used for production (and in storage) is conducted annually. When any tool is determined to be unacceptable, the General Manager or designee ensures that it is fixed or replaced.
3. Programs - PMC controls programs in electronic files on computer drives and backed-up per **procedure 7.5**.

4.2.2 Tooling Identification: Tooling is identified when parts are determined to be part-specific. Identification may be by labeling, vibro peening, or other suitable methods. Tooling that is interchangeable or process specific does not need individual identification.

4.2.3 Program Control: Trained PMC employee(s) verify part configuration of the program to customer requirements. If the program configuration is the same as the previous run, it is used, and output of the program is verified at first article inspection. If the configuration is not current, the program is upgraded to the current configuration per customer requirements. PMC verifies all applicable documents are traceable with correct product configuration information prior to loading program from department computer to production machine. Configuration and traceability is re-verified by the set-up person matching the program number to the set-up sheet. Any nonconformance is corrected prior to the starting of the job. The program control process is verified upon acceptance of the first article.

4.3 Validation and control of special processes: Where the results of processes cannot be fully verified by subsequent monitoring and measurement of the product; the processes are carried out by qualified suppliers to ensure that the specified requirements are met. PMC define the significant operations and parameters in the process to be controlled during production in the purchase order and / or attachments as applicable. Those will include the provisions for the items listed immediately below. Records are maintained for qualified processes, equipment and personnel, as appropriate.

- a) definition of criteria for the review and approval of the processes;
- b) determination of conditions to maintain the approval;
- c) approval of facilities and qualification of persons;
- d) qualifications of persons;
- e) use of specific methods and procedures for implementation and monitoring the processes;
- f) requirements for documented information to be retained.

4.4 Production process verification: PMC ensures that the production process can produce products that meet requirements. See procedure 8.5.1 (First article inspection).

Title: Production

Procedure: 8.5

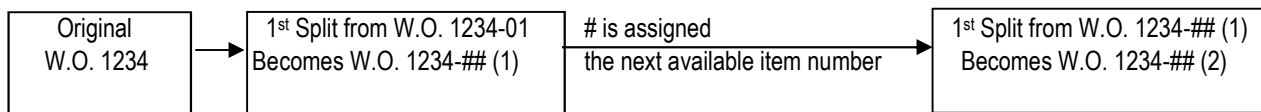
Page: 4 of 4

4.6 Traveler “Splits” Control: Traveler splits MUST retain the traceability of operations, material, inspections, and manufacturing data. All splits will retain the same Traveler number as the original Traveler with the addition of the designated “NUMBER” as explained below. Traveler splits will be controlled as follows:

1. On the Traveler being split, at the Operation that the split occurs write the **“QUANTITY”** that is being split, and the phrase **“TRANSFERRED TO TRAVELER”** and the **“NUMBER”** of the split sequence. *See example below.*

2. On the copy of the Traveler, rubber stamp **“SPLIT COPY”** to the Split Traveler. In the job notes column write **“TRANSFERRED FROM TRAVELER #XXXXXX AT OPERATION #XXXXX”**

3. Continue manufacturing both Travelers through the remaining operations. If more “splits” are required, follow the steps below.



4.7 Frozen Planning Requirements: PMC develops manufacturing planning and develops controlled processes per customer requirements and when required by contract does not change the planning or processes (frozen planning and processes). These plans and processes are identified on the Travelers that they are customer controlled and cannot be changed without written customer authorization. All “Frozen Planning or Processes are revision controlled and remain frozen throughout the existing contract and all subsequent contracts for the item unless changes to the planning are made in accordance with customer written authorization.

4.8 Multiple Operations or Machine Centers: When an operation is being performed on multiple machines, all separate operations noted are traceable and the quantities controlled. When multiple operations are being performed on multiple machines at the same time, each operation is noted on the Traveler, and the specific machine or operation is noted as an attachment on a separate sheet, or on the Traveler as applicable. At a minimum, each operation that is started will be noted on the traveler.

5.0 Records: Controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision “D”.	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Inspection

Procedure: 8.5.1

Page: 1 of 3

1.0 Purpose: The purpose of this procedure is to define the methods PMC uses to establish a procedure for the control of inspection at PMC. PMC monitors and measures 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. Evidence of conformity with the acceptance criteria is maintained. This procedure applies to all parts that are inspected at PMC.

2.0 Responsibility: The Quality Manager is responsible for all requirements of inspection of this procedure. Inspection functions can be delegated to other Departments with trained personnel who act as Quality Department inspector for determining product acceptance.

3.0 Required Documentation: Inspection Reports

4.0 Procedure: All inspection for product acceptance is performed with calibrated inspection equipment. Reference inspection equipment, gages, and/or aids may be used when reviewing product process or parts under manufactures risk as acceptable to proceed, with acceptance to customer requirements to be made later with calibrated equipment. Measurement requirements for product is documented and includes criteria for acceptance and/or rejection, where in the sequence measurement and testing operations are to be performed, required documented information of the measurement results (at a minimum, indication of acceptance or rejection), and any specific measurement instruments required, and any specific instructions associated with their use. When critical items, including key characteristics, have been identified PMC ensures they are controlled and monitored in accordance with the established processes. The release of product and delivery of service to the customer does not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.

a) Inspection Documentation: Quality plans or work instructions include criteria for acceptance and rejection; inspection and testing sequence operation; documented inspection results; identification of inspection instruments; documents associated with specific inspection instruments enabling them to be designed, produced, validated, controlled, used and maintained. Where required to demonstrate product qualification, the organization ensures that documented information provide evidence that the product meets the defined requirements. The organization ensures that all documents required to accompany the product are present at delivery.

4.1 Receiving Inspection: The Receiving Department verifies that all products received meet the requirements of PMC and or customer purchase order document. Receiving Inspection inspects the product to make certain that all the applicable characteristics are acceptable. Receiving inspection verifies compliance to documented blue prints, specifications or other purchase order required documents.

- a) **Acceptance by Certification** is accomplished by assuring that the data in the reports are acceptable per applicable specifications based on comparing the certifications against the actual specification, or by reviewing the customer design data and ensuring that PMC ordered the correct products and the supplier supplied the correct product by verifying the supplier C. of C. or receiving document. Receiving inspection acceptance is documented for the received product on the traveler and or receiving log. The accepted parts are moved to the next scheduled operation.
- b) **Inspection hold/ release for positive recall:** Where product is released for production use pending completion of all required measurement and monitoring activities, it is identified and recorded to allow recall and replacement if it is subsequently found that the product does not meet requirements. PMC separates and or holds product until the required inspection or test are completed or certifications received and verified. Products may be released under positive recall by noting the Traveler with all the traceability information to allow for tracking product and to permit immediate recall if necessary. Customer authorization for release of the product is documented and maintained as a permanent record in the part number file as applicable. Product released for processing that by passes any inspection must be authorized by PMC in conjunction with the customer. The missed inspection/test task is verified as acceptable at final inspection prior to shipment to the customer.
- c) **Discrepancy:** If there is an error or discrepancy the supplier is notified, and the material is segregated until the corrections are made and or the parts returned to the supplier. A rejection document is flowed down to the supplier as applicable. Non-acceptable parts processed per procedures 8.7 or 10.2 as applicable.

4.2 First Article; The inspector, Setup-man or a person designated by the Quality Manager inspects the first production part for all the applicable design characteristics that are being machined for that process. The inspection is documented on the traveler as applicable. When required by contract a first article is documented on a first article inspection form and may be submitted by PMC to the customer. All machining operations are first article inspected prior to machining of the remainder of parts in that lot. If the first article is acceptable the part is released to manufacturing for continuation of that process. If the first article is not acceptable, the part is returned with the noted discrepancy being conveyed for correction. If the part cannot be reworked to blue print specification, it is documented as required

Title: Inspection

Procedure: 8.5.1

Page: 2 of 3

to ensure control. It may be documented as a rejection or it can be used as set-up piece or sample part. The set-up / sample part is controlled and scrapped or identified to prevent its use at the end of the production run for that part number. The corrected part is returned to inspection for verification of all design characteristics. If the part is acceptable, the part is returned for continuation of the process. If the part is not acceptable it follows the process as described above for parts that are not acceptable upon first article inspection.

4.3 Completed Part First Article: The Inspection of a completed part to design characteristics to ensure compliance. The Complete first article may be supplemented by a "Delta" or "Change" first article when a change to a completed part is mandated through a configuration change. A "Delta" first article can be performed on the configuration change and if all prior characteristics are acceptable, and the "Delta" first article is acceptable, the "Delta" first article can be used for the configuration changed part. If any non-conformity is noted, the entire first article for configuration change is unacceptable. Completed Part First Article requirements are controlled by customer contract or industry standards only when documented in writing.

a) Inspection Report Completion: When required by contract the customer designated first article inspection reports is used. If AS9102 (latest revision) is noted, the AS9102 applicable inspection report is completed per the guidelines of AS9102. If a customer special inspection report is used, the instructions for its completion are issued with the inspection report. For internal PMC inspection reports, the instructions for the inspection report a used as the guideline for completion. Inspection report instructions are maintained by the Quality Manager and are to be used for report completion. Training on instructions for inspection report completion are documented. FAI reports as a minimum lists the equipment and/or tools used, actual data, nominals, tolerance, inspector, all design requirements applicable, and other customer or company required information.

b) Initiating Partial or Re-accomplishment of First Article Inspection: The FAI requirement, once invoked, continue to apply even after initial compliance. The FAI requirements may be satisfied by a partial FAI that addresses differences between the current configuration and prior approved configurations. When a partial FAI is performed, the inspector completes only the affected fields in the FAI forms. FAI requirements may also be satisfied by previously approved FAI performed on identical characteristics of similar parts produced by identical means. When FAI requirements (partial or complete) are satisfied in this manner, PMC identifies the approved configuration in the index of part numbers on the inspection report. PMC performs a full FAI, or a partial FAI for affected characteristics, when any of the following events occurs, a change in the design affecting fit, form or function of the part. A change in manufacturing source(s), process(es), inspection method(s), location of manufacture, tooling or materials, that can potentially affect fit, form or function. A change in numerical control program or translation to another media that can potentially affect fit, form or function. A natural or man-made event, which may adversely affect the manufacturing process. A lapse in production for two years or as specified by the Customer.

c) Nonconformance Handling: The FAI may not be closed with a non-conforming feature. Nonconformances will be addressed per procedure 10.2. PMC re-performs an FAI for those affected characteristics and records the results when required by the customer or PMC management.

4.4 Assemblies and Subassemblies: When assemblies and/or their sub-assemblies are manufactured, their individual components may require traceability and first article inspection data. The top-level assembly documentation must identify the component parts and/or the sub-assemblies. First article documentation must include the individual component as the assembled unit or its sub-assemblies. Each individual component must have its individual first article documentation or its documented acceptance data. The assembly or sub-assembly first article documentation will include the first article or acceptance data for each component. First article inspection documentation need not include all the component acceptance data if referenced on the assembly first article document or if not required by the customer to be submitted, but retained for later review.

4.5 In-Process Inspection: PMC Inspection and/or Manufacturing personnel inspects all parts to the required configuration or traveler instructions per PMC and customer requirements. The inspections are accomplished prior to further processing. The operator signs or stamps the traveler to show operation completion and acceptance by manufacturing. Inspection verifies the acceptability of the product at that operation by means of an acceptance stamp, quantity and date notation on the Traveler. All nonconformance is documented and controlled **per procedure 8.7 or 10.2 as applicable.**

4.6 Sampling: PMC samples per customer documented sample plan/and or customer approved sample plan to assure part compliance to engineering specifications. In-process inspection and or sampling is accomplished per traveler instructions. When PMC uses sampling inspection as a means of product acceptance, the sampling plan is justified based on recognized statistical principles and appropriate for use (i.e., matching the sampling plan to the criticality of the product, Major and Minor characteristics and to the process capability).

Title: Inspection

Procedure: 8.5.1

Page: 3 of 3

4.7 Final Inspection: PMC inspects all parts to the required configuration and assure that they meet the Traveler instructions per PMC and customer requirements. PMC verifies that all manufacturing planning has been completed and accepted to the customer requirements. Inspection buyoff of the C. of C. and PMC shipping documents are accepted as proof of final inspection. Final inspection visually inspects all parts prior to acceptance for final customer submittal.

4.8 Document Review: Final Inspection reviews all documents to ensure that the latest changes, the correct customer instructions, non-conformance dispositions, and final inspections have been accomplished and approved by the customer. All non-conformance or deficiencies are handled as rejections and are processed **per procedure 8.7.**

4.9 Customer & Government Source: When contractually required, Quality Management and/or trained Quality employee will as applicable per customer contract call Customer Source to approve products prior to Shipment. If required, Government Source is called after Customer Source has accepted product.

a) Delegated Customer Source is handled and documented in accordance with Customer specific instructions

5.0 Records: All inspection reports and travelers are controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision "D".	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Property Belonging to Customers or External Providers

Procedure: 8.5.3

Page: 1 of 1

1.0 Purpose: This procedure defines the methods used by PMC in the control of Property belonging to customers or external providers (suppliers). PMC exercises care with property belonging to customers or suppliers. while it is under PMC control or being used by PMC. PMC identifies, verifies, protects and safeguards property belonging to customers or suppliers. provided for use or incorporation into the product. If any property belonging to customers or suppliers. is lost, damaged or otherwise found to be unsuitable for use, the organization reports this to the customer and maintains records. This property can include materials, components, tools and equipment, premises, intellectual property, and personal data.

2.0 Responsibility: The Quality Manager or designee is responsible for compliance to this procedure.

3.0 Required Documentation: Receiving Log, Identification Tag

4.0 Procedure: PMC will identify, verify, protect and safeguard customers' or suppliers' property provided for use or incorporation into the products and services.

When the property of a customer or supplier is lost, damaged or otherwise found to be unsuitable for use, PMC will report this to the customer or supplier and retain documented information on what has occurred.

A customer's or supplier's property can include material, components, tools and equipment, premises, intellectual property and personal data. PMC verifies that all customer property meets the purchase order/blue print/specification requirements by processing all customer-supplied products through the PMC receiving, and receiving inspection departments. All customer property is inspected, audited for conformance and is accepted or rejected accordingly.

4.1 Rejections: All rejected customer property is segregated and documented per **procedure 10.2** and the customer is promptly notified. The disposition of non-conforming customer property is made by the customer, and is documented in writing by the customer. PMC does not accept any nonconforming customer supplied product unless directed to do so by the customer in writing.

4.2 Identification: Customer property shall be immediately identified in a method non-detrimental to the material. Typically, with an identification sticker with traceable information or identification tag.

4.3 Receiving Inspection: PMC verifies that all property belonging to customers or suppliers. meets the purchase order/blue print/specification requirements by processing all customer-supplied products through the PMC receiving, and receiving inspection departments. All property belonging to customers or suppliers. is inspected for conformance.

4.4 Storage: PMC controls, store and maintain all property belonging to customers or suppliers. in the same manner as PMC tooling, purchased or manufactured items as applicable. Control includes visual inspection of tools for nicks, dings, missing or broken components, and other damage. An audit of the property belonging to customers or suppliers. used for production are conducted annually as applicable. When any tool is determined to be unacceptable, the Quality Manager or designee ensures that the customer is notified. Those items requiring special storage are stored as required, with the special conditions being addressed in the customer purchase order as applicable.

5.0 Records: Controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision "D".	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Preservation

Procedure: 8.5.4

Page: 1 of 1

1.0 Purpose: The purpose of this procedure is to define the methods PMC uses to preserve products during the production process to ensure conformity to requirements.

2.0 Responsibility: The General Manager or designee are responsible for compliance to this procedure.

3.0 Required Documentation: Stock Audit, FOD Training Data, FOD audit

4.0 Procedure: Preservation can include identification, handling, contamination control, packaging, storage, transmission or transportation, and protection.

Preservation of products will also include, when applicable in accordance with specifications and applicable statutory and regulatory requirements, provisions for:

- a) Cleaning; Parts may be cleaned in between manufacturing operations to remove excess cutting fluids, polishing compounds, grime, chips and any other contaminants that may result in F.O.D. during our manufacturing process. All Parts are cleaned to remove all cutting fluids, polishing compounds, grime, chips and any other contaminants that may result in F.O.D. during our manufacturing process or at our customer's facility.
- b) Prevention, detection and removal of foreign objects; **(See procedure 8.5.4.1).**
- c) Special handling and storage for sensitive products; Sensitive products are controlled and be lot traceable as applicable. It is handled to prevent damage and deterioration and stored, packaged, protected through all phases of production, final inspection and delivery. Sensitive material is handled to prevent damage and is documented on the work instructions as required.
- d) Marking and labeling including safety warnings and cautions; Marking or labeling of product is per customer requirements. Shop signs designate areas for authorized personnel, safety warnings, safety equipment placement, and as needed warnings for cleaning, repair, or temporary hazards.
- e) Shelf life control and stock rotation; PMC maintains shelf life control as required. This consists of removal of expired items and disposal per manufacturers' guidelines. All shelf life item stock is labeled with the expiration date, a shelf life audit is conducted annually. Stock is lot controlled with revision control as applicable. The stock is used in the first in first out method whenever practical.
- f) Special handling and storage for hazardous materials. All hazardous materials are stored per manufacturers' requirements. All hazardous material is identified; the control of hazardous material is the responsibility of the General Manager or designee.
- g) Packaging: Products are packaged per customer requirements. If no requirements are specified, industry standard commercial packaging will be used. All product packaged is controlled by instructions on the traveler as applicable.
- h) Storage: Controlled and lot-traceable items are controlled, counted and stored so they don't incur any damage or deterioration. A location is provided for each controlled item stored. Incoming material is stored to encourage first-in-first-out (FIFO) order of issue. Product that has been stored can be released from stock by the General Manager or designee. Product is removed from stock and is final inspected for all customer requirements, documentation and identification prior to shipment. Final inspection is accomplished per inspection procedure 9.1. A stock audit will be conducted annually to ensure that items don't incur any damage or deterioration

5.0 Records: Stock Audit, FOD Training Data, FOD audit all controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision "D".	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Foreign Object Detection

Procedure: 8.5.4.1

Page: 1 of 2

1.0 Purpose: The purpose of this procedure is to define the methods PMC uses to preserve the product during internal processing and delivery to the intended destination in order to maintain conformity to requirements. As applicable, preservation includes identification, handling, packaging, storage, and protection. Preservation is also applied to the constituent parts of a product. This procedure also defines PMC's process for the prevention of nonconforming product due to damage caused by foreign objects.

2.0 Responsibility: The General Manager or his designee are responsible for compliance to this procedure.

3.0 Required Documentation: Stock Audit, FOD Training Data, FOD audit

4.0 Procedure: A system is maintained governing the: identification, handling, packaging, storage, protection and delivery of materials and products.

a) Identification: PMC maintains the identification of the configuration of the product in order to identify any differences between the actual configuration and the agreed configuration. Identification is per customer requirement, and is noted on the work instruction for the current status. PMC controls the unique identification of the product and maintain records. When identification traceability is lost, the product is controlled as nonconforming product per Procedure 8.7. PMC identifies the product from receipt, through production and delivery.

b) Handling: PMC personnel receive, issue and store all material in the received or equivalent container unless special protection or handling is established by PMC or the customer. All products are handled in a manner to prevent damage or deterioration by use of padded or protective material handling units, and methods.

c) Packaging: Products are packaged according to customer requirements, or industry standard commercial packaging. All product packaged is controlled by instructions on the traveler as applicable.

d) Protection: PMC protects parts to prevent damage or deterioration during all product realization processes, and additional protection measures per customer requirements are documented on work instructions as applicable.

4.1 Preservation: Preservation of product also includes, where applicable in accordance with product specifications and applicable statutory and regulatory requirements, provisions for:

a) Cleaning: Parts may be cleaned in between manufacturing operations to remove excess cutting fluids, polishing compounds, grime, chips and any other contaminants that may result in FOD during our manufacturing process.

b) Prevention, Detection, and Removal of Foreign Objects: PMC maintains machining, assembly and work areas free of trash, accumulated metal chips, and foreign objects. PMC performs cleanup of its work areas to remove foreign objects. Reference section 4.2 (below).

c) Special Handling for Sensitive Products: Sensitive products are controlled and be lot traceable as applicable. It is handled to prevent damage and deterioration and stored, packaged, protected through all phases of production, final inspection and delivery. Sensitive material is handled to prevent damage and is documented on the work instructions as required.

d) Marking and Labeling including Safety Warnings: Marking or labeling of product is per customer requirements. Shop signs designate areas for authorized personnel, safety warnings, safety equipment placement, and as needed warnings for cleaning, repair, or temporary hazards.

e) Shelf Life Control and Stock Rotation: PMC maintains shelf life control as required. This consists of removal of expired items and disposal per manufacturers' guidelines when applicable.

f) Special Handling for Hazardous Materials: All hazardous materials are stored per manufacturers' requirements. All hazardous material is identified; the control of hazardous material is the responsibility of the Quality Manager or designee.

4.2 Foreign Object Damage (FOD) Prevention: PMC manages the work environment to achieve conformity to product requirements. PMC provides the resources necessary to achieve conformity to customer requirements. Facility cleaning consists of removal of trash accumulation and cleaning work areas of general clutter. PMC ensures inspection equipment and shop equipment are clean and maintained. Additional cleaning per customer requirements may be documented on traveler as applicable. Other FOD prevention controls include:

- **FOD Awareness signage (4.2.1 below)**
- **Training** for the detection and prevention of potential FOD into the product during manufacturing, inspection, assembly, handling, packaging and shipment is instituted for all applicable employees per section 4.2.2 (below).

Title: Foreign Object Detection

Procedure: 8.5.4.1

Page: 2 of 2

- **A departmental FOD list** is created for each department and is used to note contaminants, contamination sources and potential FOD items at PMC. The identification of items that can damage products is the responsibility of the Quality Manager or his designee with input from any company employee. These lists will include as a minimum, the Production floor, Inspection department/areas, and Shipping and receiving. (Anywhere product flows).
- **FOD audits** are performed quarterly by the General Manager and Quality Manager.
- **Final inspection** includes visual inspection for FOD. The method of preventions is noted and are established as guidelines for detection. Examples of FOD may be staples, handling products, nails, chips, clips, cutting tools, paper, food, rags, pins, solvents, wood or pallet fragments etc.
- **Corrective action** - When damage is found, PMC reviews the nonconformity, the method of contact, and where the contact took place and perform corrective action per procedure 10.2 as applicable. If customers or regulatory authorities require additional FOD requirements, they are implemented as applicable.

4.2.1 Area Designation: PMC will designate area(s) to meet the requirements of FOD Critical, FOD Control, FOD Awareness and clearly identify designated area(s) using one or more of the following methods:

- Signs
- Maps
- Floor markings
- Barriers
- Defined through other documentation

4.2.2 FOD Prevention Training and Awareness: PMC shall implement FOD prevention training and awareness that addresses FOD Prevention program requirements. Prior to accessing FOD designated areas, personnel require initial and refresher training at defined intervals based on FOD risk assessment. The training program should include the following minimum requirements:

- Establish FOD awareness campaigns and training requirements as applicable, in accordance with the supplier’s Quality Management System and FOD plan requirements, as deemed necessary
- Address all aspects of FOD prevention including but not limited to: proper storage, shipping and handling of material, components, and equipment; foreign object debris control techniques; housekeeping; cleaning and inspection of components and assemblies; tool and hardware accountability and control; control of personal items, equipment, and consumables; identification of high risk areas; and FOD incident reporting procedures.
- Provide certification training to address area-specific FOD prevention activities, processes and procedures, as required
- Verify timely completion of FOD training for new personnel
- Review and update the FOD prevention training program periodically to address new capital purchases and/or process changes
- Make FOD prevention training materials readily available to employees

PMC will maintain records of FOD prevention training per procedure 7.2.5.

4.5 FOD prevention at lower tier subcontractor’s facilities: To prevent sub-tier FOD contamination from entering company products through supplier material, processing, or manufacturing, Purchase order requirements for FOD controls will be initiated when PMC identifies customer FOD flow-down, or as applicable.

5.0 Records: Stock Audit, FOD Training Data, FOD audit all controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision “D”.	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Control of Nonconforming Product

Procedure: 8.7

Page: 1 of 2

1.0 Purpose: This procedure establishes the methods used by PMC to define the controls and related responsibilities and authorities to ensure that outputs (products) that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery. Control may be Rejection Tag, marking on the product, identification, and segregation from acceptable product and all traceability maintained.

2.0 Responsibility: PMC has defined the responsibility and authority for review and disposition of nonconforming product under the authority of the Quality Manager to be listed on the PMC stamp and authorities log. Personnel approved for making these decisions are assigned to the disposition process based on knowledge, experience and competency. The allowable dispositions are rework, scrap, submit to the customer for disposition, or return to vendor. Product under the contracted authority of the customer design data, only the customer may disposition non-conforming product.

3.0 Required Documentation: Nonconformance Report, Rejection Tag, Stamp and Authorities Log

4.0 Procedure: PMC will take appropriate action based on the nature of the nonconformity and its effect on the conformity of products and services. The term "nonconforming outputs" includes nonconforming product or service generated internally, received from a supplier, or identified by a customer. This will also apply to nonconforming products and services detected after delivery of products, during or after the provision of services. PMC's nonconformance control process will maintain records defining the responsibility and authority for the review and disposition of nonconforming products and the process for approving persons making these decisions; The responsibilities of those employees is to follow all applicable requirements of this procedure including:

- taking actions necessary to contain the effect of the nonconformity on other processes, products or services;
- timely reporting of nonconformities affecting delivered products and services to the customer and to relevant interested parties;
- defining corrective actions for nonconforming products and services detected after delivery, as appropriate to their impacts.

Interested parties requiring notification of nonconforming products can include registrars, suppliers, customers, and regulatory authorities.

PMC will deal with nonconforming products in one or more of the following ways:

- a) corrections based on the controls as noted in procedure 10.2
- b) segregation, containment, return or suspension of provision of products. All NCP will be segregated from conforming products and handled as applicable per this procedure or procedure 10.2.
- c) informing the customer. When nonconforming product is detected after delivery or use has started, PMC will take action appropriate to the effects or potential effects of the nonconformity. PMC notifies customers in a timely manner, usually within 24 hours or per customer's requirement when nonconformity product has already been delivered. The notification includes concise description of discrepancy, parts and serial numbers affected, lot number, delivered quantity, and delivery dates and a statement of corrective action for the noted discrepancy as applicable. PMC's nonconforming product control process provides for timely reporting of delivered nonconforming product by taking actions necessary to contain the effect of the nonconformity on other processes or products
- d) PMC will ensure that obtaining authorization for acceptance under concession by a relevant authority and, when applicable, by the customer will be documented. The Quality Manager or designee will notify the customer with all traceable information and detailed suspect non-conforming information to allow the customer to make a disposition based on valid product or service data.

Dispositions of use-as-is or repair for the acceptance of nonconforming products will only be implemented:

- after approval by an authorized representative of PMC responsible for design or by persons having delegated authority from the design organization;
- after authorization by the customer, if the nonconformity results in a departure from the contract requirements.

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

Counterfeit, or suspect counterfeit, product will not be returned to the supplier and will be controlled to prevent re-entry into the supply chain **per procedure 8.1.4.**

Conformity to the requirements will be verified when nonconforming products are corrected. All reworking or repairing is re-inspected and/or retested for conformance to the original contractual requirements or new requirements determined to be applicable based on the nonconforming product review. This will typically be documented on a rework traveler that is created for the reverification.

Title: Control of Nonconforming Product

Procedure: 8.7

Page: 2 of 2

4.1 PMC will retain records that:

- a) describe the nonconformity, to include configuration, traceability, detailed concern, and as applicable process or other products affected.
- b) describe the actions taken; to include process, documentation, equipment, training changes and the monitoring to evaluate the effectiveness of the actions taken
- c) describe any concessions obtained. The concessions must be documented and implemented and verified as applicable to ensure compliance to the concession document. Records of concession approver and details will be noted on the Nonconformance Report or CA / NCR log if NCR form is not used.
- d) identify the authority deciding the action in respect of the nonconformity. This is noted on the Nonconformance Report or CA / NCR log if NCR form is not used.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, is maintained on the Nonconformance Report or CA / NCR log if NCR form is not used.

4.1.1 Customer MRB Authority: If customer MRB authority is granted, PMC obtains written MRB plan approval. The PMC MRB plan lists members, restrictions authorized personnel who disposition nonconforming material, and records list required. PMC provides written rationale for all use-as-is dispositions that are not accompanied by a specification or design change authorized by the customer.

5.0 Records: Nonconformance Report, Rejection Tag, Stamp and Authorities Log all controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision "D".	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Customer Satisfaction

Procedure: 9.1.2

Page: 1 of 1

1.0 Purpose: The purpose of this procedure is to define the methods PMC will monitor customers' perceptions of the degree to which their needs and expectations have been fulfilled. This process determines the methods for obtaining, monitoring and reviewing this information.

2.0 Responsibility: The General Manager or designee is responsible for compliance to this procedure.

3.0 Required Documentation: Customer Scorecards, Quality Objectives, Customer Complaint Log, Customer Satisfaction Surveys

4.0 Procedure: As one of the measurements of the performance of the quality management system, PMC monitors information relating to customer perception as to whether PMC has met customer requirements. PMC obtains, uses and monitors product conformity, on-time delivery performance, customer complaints and corrective action requests to evaluate customer satisfaction.

When PMC does not meet minimum customer satisfaction requirements, a customer satisfaction improvement plan that address the deficiencies identified by these evaluations, and assess the effectiveness of the results is developed and implemented. The four measures used to measure customer satisfaction are reviewed annually during the management review meeting.

a) Product conformity: Product conformity is measured by calculating the number of parts shipped to the customers versus the number of parts returned, rejected, or needing corrective action based on customer notification. This is noted as a percentage of acceptable parts.

b) On-time delivery performance: On-time delivery data is measured by calculating the number of lots (orders) shipped on time to the customers' schedules versus the number of parts that are shipped late based on customer contracted schedule and shipping allowance. PMC tracks the products on-time delivery status via PMC's shipping log. PMC reviews data and takes action when necessary.

c) Customer complaints: PMC documents a Customer Complaint Log. PMC defines a customer complaint as a lapse of customer service due to the customer being unhappy with PMC's level of service provided. A complaint typically does not generate nonconforming product. The control of nonconforming product is addressed in procedure 8.7. The customer complaint log is reviewed periodically as necessary and annually during the management review meeting. Customer complaints are classified into various categories to help with statistical processing of the data for determining customer satisfaction. The resulting data is analyzed by the General Manager or designee and is discussed at the management review meeting, and or as applicable to note complaint resolution, improvement plans, or corrections as needed. If actual corrective action is required, it is performed and documented per procedure 10.2

d) Corrective action requests: Customer corrective action requests are handled per procedure 10.2 Corrective Action.

4.1 Customer Satisfaction Surveys: PMC conducts customer satisfaction surveys. A survey may be sent to customers, or the information may be directly taken through email or phone communications. Survey questionnaires are designed to address different aspects of products and services that may contribute to customer satisfaction or dissatisfaction. When appropriate, questionnaires should be coordinated with categories used for classifying customer feedback. Quality Management or their designee compile and analyze customer satisfaction surveys and combines the results with other customer satisfaction data for compatible aspects of products and services. Conclusions are presented and discussed at management review meetings.

5.0 Records: Customer Scorecards, Quality Objectives, Customer Complaint Log, Customer Satisfaction Surveys all controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision "D".	04/01/2018	R.B.
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Title: Internal Audit

Procedure: 9.2

Page: 1 of 1

1.0 Purpose: The purpose of this procedure is to define the methods PMC uses to define the responsibilities and requirements for planning and conducting internal audits, establishing documented information and reporting results and establish audit functions that evaluate the effectiveness of the QMS. PMC conducts internal audits at planned intervals to determine whether the quality management system conforms to the planned arrangements, to the requirements of AS9100, PMC’s QMS requirements, and that it’s effectively implemented and maintained.

2.0 Responsibility: The General Manager or designee is responsible for compliance to this procedure.

3.0 Required Documentation: Internal Audit Schedule, Process Audits, QMS Internal Audits

4.0 Procedure: PMC will conduct internal audits at planned intervals to provide information on whether the QMS; conforms to:

- 1) PMC’s own requirements for its QMS; PMC’s own requirements includes customer and applicable statutory and regulatory QMS requirements.
- 2) the requirements of AS9100 (International Standard); is effectively implemented and maintained.

When conducting internal audits, performance indicators can be evaluated to determine whether the QMS is effectively implemented and maintained.

4.1 PMC will:

- a) plan, establish, implement and maintain an audit program including the frequency, methods, responsibilities, planning requirements and reporting, which will take into consideration the importance of the processes concerned, changes affecting PMC, and the results of previous audits; this will be planning on the PMC audit schedule;
- b) define the audit criteria and scope for each audit; this will be listed on the audit records;
- c) select auditors and conduct audits to ensure objectivity and the impartiality of the audit process; this is accomplished by subcontracting internal audit process to trained consultants;
- d) ensure that the results of the audits are reported to relevant management;
- e) take appropriate correction and corrective actions without undue delay;
- f) retain records as evidence of the implementation of the audit program and the audit results.

The audit may include Process Audits, Complete QMS audits, and/or customer contractual requirements.

- a) **Audit Schedule:** Internal QMS Audits and Process Audits are conducted a minimum of once every calendar year. An audit schedule is developed and serves as a guide to performing audits at PMC. Audit schedule dates may vary depending on company priorities and circumstances. Audits can be performed within 30 days of the audit schedule dates. The audit schedule is based on the status of importance of the activity to be audited and/or the sequence and interaction of the activity within a process.
- b) **Personnel Qualifications:** Personnel are selected for auditing assignments based on experience or training that establishes their qualifications are adequate regarding the activities to be audited. Audits are carried out by personnel independent of those having direct responsibility for the activity audited.
 - *Training of Auditors:* Auditing personnel (other than experienced personnel in a particular activity being audited) have, or are given appropriate training or orientation to develop their competence for performing required audits.
- c) **Detailed Audit sheets and other Applicable formats:** Detailed internal audit sheets are developed for the applicable QMS requirements and / or the main processes established at PMC and applicable customer requirements.
- d) **Audit Review:** Audit results are reviewed with applicable management to communicate the effectiveness of the QMS or Process audited and identify areas of needed improvement. Audits are reviewed during annual management review meetings.
- e) **Audit Nonconformances and Findings:** When the QMS and Process requirements are not met or could be improved, the auditor notes the deficiency or opportunity and it is addressed per procedure 10.2 (See Nonconformance categories and Significant findings).
- f) **Corrective action follow-up:** When corrective action is required, these are recorded on the CA / NCR log. After completion, follow-up audits may be initiated, and documented to verify effectiveness. Re-audits after corrections have been completed may be scheduled and performed on an as-needed basis.

5.0 Records: Internal Audit Schedule, Process Audits, QMS Internal Audits all controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

Revision	Nature of Change	Issue Date	Approval
NC	Initial release to meet the requirements of AS9100 Revision “D”.	04/01/2018	R.B.
A	Confirming Revision	11/15/2018	R.B.

Title: Nonconformity and Corrective Action

Procedure: 10.2

Page: 1 of 2

1.0 Purpose: This procedure establishes the methods used by PMC to define the controls and related responsibilities and authorities for dealing with **Nonconformity (NC) and Corrective Action (CA) to include** nonconforming product and to ensure that product which does not conform is identified and controlled to prevent unintended use or delivery. This procedure applies to materials or product nonconformance that occurs at any stage of the company's processes, including sub-contractor supplied materials and product. It also applies to nonconforming product returned from customers.

2.0 Responsibility: The Quality Manager or designee is responsible for compliance to this procedure.

3.0 Required Documentation: Nonconformance Report, Corrective Action form, CA / NCR Log

4.0 Procedure: When a nonconformity occurs, including any arising from complaints, PMC will review the nonconformance, determine the scope of the nonconformance, review the process and product impact and determine the cause, corrections, and corrective actions as applicable. A CA can be initiated by any employee who judges that a nonconformity or substantial nonconforming condition has an adverse effect on PMC product quality, process effectiveness and or customer satisfaction. CA may be initiated by customers, suppliers, and/or in-house. The decision whether an individual nonconformity is worthy of a CA is based on product or process impact. When customer complaints are received from customers, management will determine whether CA is necessary. Corrective actions must be appropriate to the effects of the nonconformities encountered.

- a) **Reacting to nonconformities:** The nonconformance (customer, supplier, and/or in-house) information is reviewed by the Quality Manager or designee who determines if CA is to be initiated. The review may include personnel from PMC's personnel, customer's personnel or any combination of persons approved by the Quality Manager. Management will take action to control and correct the nonconformance and deal with the consequences in a manner consistent with PMC's quality policy and procedure 8.7.
- b) **Evaluating the need for action.** PMC will evaluate the need for action to eliminate the cause(s) of the nonconformity, in order that it does not recur or occur elsewhere. This may be delegated to other qualified personnel as determined by the Quality Manager.

Management will take corrective action when:

- trends are identified relative to nonconforming products or processes;
- nonconformances cause a late shipment to a Customer. (I.e. Insufficient quantities to ship due to product rejections);
- the nonconformance has a product or process impact (as determined by Quality Manager) of \$750 or greater;
- when requested by Customer or other relevant interested party.

The Quality Manager determines the department employee or supplier who has responsibility over the CA. The nonconformity is reviewed and analyzed. Its cause is determined and may include as applicable, causes related to human factors. Root cause analysis techniques such as "5-Whys" or brainstorming may be used. PMC determines if similar nonconformities exist, or could potentially occur. Product with similar nonconformities are **controlled per procedure 8.7**. Causes of nonconformities are determined using root cause analysis. Root cause analysis must be robust to ensure that the true causes of nonconformities are identified. The root cause is recorded on PMC's NCR / CA form.

- c) **Determining actions needed:** PMC determines any action/s needed; and then implements remedial and corrective actions as necessary. The Quality Manager or designee determine and implement action needed to implement an effective corrective action plan, and may issue the corrective action to the personnel responsible for the nonconformity as applicable. The corrective action plan (as applicable or required) will include: the nonconformance, Requestor, Issued To, Criticality (Major, Minor), Date Initiated, Correction (action taken to control and correct the nonconformance and deal with the consequences), Root cause, Corrective action, Effectiveness review, and Issuer and Approver information. The action plan must eliminate the root cause of the nonconformity to ensure that it does not recur or occur elsewhere.
- d) **Effectiveness review:** PMC will review the effectiveness of any corrective action taken; PMC will review the effectiveness of the corrective action taken using sufficient examples to determine if the correction has eliminated the cause of the nonconformity. PMC documents verification plans and effectiveness reviews on the corrective action form or the CA / NCR log as applicable. The effectiveness review is meant to ensure that nonconformities has not recurred. Accepted corrective actions are closed by the Quality Manager or designee after conclusive evidence has been verified. The corrective action will be reviewed for effectiveness a reasonable amount of time after the action has been taken. This should be no later than 12 months after the detection of the nonconformity. If more time is needed for the effectiveness of the corrective action to be verified, an explanation for further extensions must be noted on the corrective action form within the first 12 months after the detection of the nonconformity.
- e) **Risks and Opportunities:** When PMC gleans an opportunity for improvement or identifies a risk during the CA process PMC will update risks and opportunities determined during planning, if necessary. This will be documented on the improvement log as required.

Title: Nonconformity and Corrective Action

Procedure: 10.2

Page: 2 of 2

- f) **QMS changes:** When PMC gleans an opportunity for improvement or identifies a risk during the CA process PMC will make changes to the QMS, if necessary. This is typically accomplished through revising procedures or work-instructions, then training applicable employees.
- g) **Supplier Nonconformities and CA:** PMC will flow down corrective action requirements to an external provider (supplier) when it is determined that the supplier is responsible for the nonconformity; PMC flows down the corrective action requirements to a Supplier when it is determined that the Supplier is responsible for the nonconformity. The Supplier is issued a corrective action request. The Supplier corrective action request is documented within the CA / NCR Log and is tracked for compliance. Typically, PMC requires that all Supplier corrective actions require a response within 30 days and complete correction of the nonconformity will be due within 60 days of the detection of the nonconformity. If more time is needed to complete the corrective action, an explanation for further extensions must be noted on the corrective action form within the first 60 days after the detection of the nonconformity.
- h) **Taking specific actions when timely and effective corrective actions are not achieved:** PMC Quality Manager or designee reviews the corrective action response in its status and determine whether the current cause and corrections are worthy of additional time to respond, if additional time is granted, a new due date is assigned. If the corrective action request needs to be elevated to the General Manager, the corrective action is reviewed, and his disposition is documented and considered as final. The responsible persons are notified of the actions determined by the General Manager for corrective action resolution as applicable.
- i) **Completion:** Each CA is verified by the Quality Manager or designee. In the case of the Supplier, either the buyer who handled the CA or the Quality Manager may also sign for verification of the corrective Action. Follow-up verification is mandatory to make certain the actions described in the corrective action plan have been completed and are effective.
- j) **CA / NCR Log and Review:** The Quality Manager is responsible for effectively controlling and logging all corrective Action's and for monitoring their disposition and status. The CA / NCR log is reviewed periodically ensure corrective action status is controlled as applicable. The log is reviewed annually during the management review meeting to ensure the effectivity of the corrective actions taken. The Quality Manager reviews and closes the corrective action for each nonconformance, and its status updated; only after all desired actions are achieved. If the results of the actions taken are unsatisfactory, and a recurrence of nonconforming product or equipment develops, a new NCR, Reject Tag or Corrective Action is initiated in accordance with the procedures contained above.
- k) **Correction Verification:** The CA / NCR log is reviewed by the Quality Manager or designee. When non-conformity does not require a formal corrective action, the action taken must also be reviewed by the Quality Manager or designee as applicable. Upon corrective action effectivity and implementation, the verification of the acceptability of the corrective action is documented on the corrective action form and/or the CA / NCR log is noted as complete.

4.1 External failure reports/data: When product has been determined to need corrective action based on an external failure reports or data, the report or data must be verified by the Quality Manager or designee. Verification may include retest or inspection, acceptance of report or data review of similar or like parts from same lot or process. Product dispositioned as scrap is controlled per procedure 8.7.

Review nonconformities (including customer complaints), to determine if a corrective action is to be initiated. The decision to initiate an in-house corrective action is based on an evaluation by the Quality Manager who determines the department, employee, Supplier or customer representative who has responsibility over the nonconformance. This review may include company personnel, customer representatives or any combination of factors. The Quality Manager will determine if there is product or process impact, if it's economically practical or contractually required to generate a corrective action.

5.0 Records: Nonconformance Report, Corrective Action form, and CA / NCR log all controlled in compliance to PMC procedure 7.5 Control of documented Information.

6.0 Revision History:

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