Camar Aircraft Parts Co. Procedures Manual

Procedures Manual

QUALITY ASSURANCE PROCEDURES INDEX

| Procedure Number | Approval | Procedure Title |
|------------------|----------|--|
| 4.2.3 | R.F. | Control of Documents |
| 4.2.4 | R.F. | Control of Records |
| 6.2.2 | R.F. | Competence, Training and Awareness |
| 6.4 | R.F. | Foreign Object Damage Prevention |
| 7.0 | R.F. | Planning of Product Realization |
| 7.2 | R.F. | Contract Review |
| 7.4 | R.F. | Purchasing |
| 7.5.1.3 | R.F. | Control of Production Equipment, Tools, Fixtures and Software Programs |
| 7.5.4 | R.F. | Control of Customer Property |
| 7.5.5 | R.F. | Handling, Storage, Packaging, Preservation and Delivery |
| 7.6 | R.F. | Control of Monitoring and Measuring Equipment |
| 8.1 | R.F. | Statistical Technique |
| 8.2.2 | R.F. | Internal Audit |
| 8.2.4 | R.F. | Inspection |
| 8.3 | R.F. | Control of Nonconforming Product |
| 8.5.2 | R.F. | Corrective Action |
| 8.5.3 | R.F. | Preventive Action |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Procedures Manual

Title: Control of Documents **Procedure Number:** 4.2.3

Page: 1 of 2

- **1.0 Purpose:** This procedure establishes the methods used by C.A.P.C. for the control of internal documents and data for release, retention, and distribution in the contracted performance of C.A.P.C. as required. This applies to customer, supplier, and regulatory data as applicable.
- **2.0 Scope:** This procedure covers the control of all documents and data as required by ISO 9001.
- 3.0 Definitions: Forms: Documents used to record the completion of all or part of the process described in procedures or Work Orders.

Procedure: Document outlining specific work processes and how the requirements of the applicable standard are being met.

References: external documents or sources used in preparing documentation and completing work.

- **4.0 Responsibility:** The President will be responsible for the control of all documents and data.
- **5.0 Procedure:** The President or his designee (document Control personnel) will be responsible for the control, approval of adequacy, review, update, re-approval, distribution, legibility and identifiability of the documentation, and for the control of the obsolete documentation. The functions of the document control personnel will be outlined by a job description and documented training. Documents will be classified as Internal Documents (those documents generated by C.A.P.C.), and controlled by a form number and revision, Customer Controlled Documents (those documents that are controlled by the customer such as customer Blue Prints or specifications while the contract is in process). Customer Controlled Documents will be placed in the job folder upon job completion and will not be controlled for configuration after the contract has been completed. Public Documents such as Industry Standards, Mil-Specs, AS, ISO, etc. will be per contract document service as applicable (these documents are controlled by Industry and a contract service that list the current revision level, and will supply the document as applicable.)
- **5.1 Configuration Control:** There will be four levels of documents at C.A.P.C. The first tier will be the *Quality Manual*, which will be the controlling document for all C.A.P.C. systems. The second tier will be *Quality Procedures*, which define what and how a process is performed. The third tier will be the **Work Order**s, which will detail the operations required to complete the product per customer requirements. The fourth tier will be *supporting forms (records, reports, memos, logs, and quality documentation)*. All new documents will be released with the letter "A" as the initial configuration control revision. Each subsequent approved release of that document will be the next letter of the alphabet (e.g., "B", "C", "D", etc.)
- **5.2 Quality System Documentation Log:** A master list of all documents will be maintained by the Quality Department and it will be updated as required. This list will ensure that the current revision status of C.A.P.C. documents are identified and documented.
- **5.3 Releasing Documentation:** The President or document control personnel can review and approve C.A.P.C. documentation. This will be evidenced by initialing the Quality System Documentation Log and releasing the document to its applicable point of use. The approval will verify that the document has been reviewed for adequacy of content, configuration and completeness against applicable customer contract requirements.
- **5.4 Document Change Incorporation:** Document changes will be reviewed and will go through the same cycle as new documents. All amendments/revisions will be distributed after approval as necessary. All changes will be agreed upon by the President or document control personnel prior to release. Documents will be reviewed and updated by the President or document control personnel; the re-approval will be documented by noting the last change made, initialing and dating the Quality System Documentation Log. The relevant version of the document will be released to its applicable point of use and implemented to the extent required.
- **5.5 Document Availability**: C.A.P.C. will ensure the all applicable documents will be issued with the Work Order to ensure that a competent employee can perform the task required. This will include the required specifications, blue prints, sketches, and or work instructions as applicable. All procedures required to perform their task will be available to the applicable employees.
- **5.6 Document Legibility and Identification:** The President or the document control personnel will ensure the legibility and identification of the C.A.P.C. documentation. Data changes are to be crossed out with a single line; then initialed and dated with the correct data being re-documented within the immediate vicinity or the original correction.
- **5.7 External Origin Documents:** The document will be reviewed by President, document control personnel or assigned designee who is competent in the document being reviewed. The review will include the acceptability of the document for its intended purpose within the organization. When the document has been approved it will be identified and retained in the applicable file for its intended use. The relevant version of the document will be released to its applicable point of use.
- **5.8 Obsolete Documents and Data:** The President or document control personnel will be promptly retrieve and by remove the obsolete documentation from the applicable point of use. Obsolete documents and data will be destroyed, obsolete documents retained for any reason will be identified as obsolete or reference, and will be controlled as needed or archived per customer requirements.

Procedures Manual

Title: Control of Documents **Procedure Number:** 4.2.3

Page: 2 of 2

5.9 Software Control: When C.A.P.C. uses software for the manufacture, test, or inspection of product, it shall be controlled (file name, item number, revision, date of development / change, machine, location or department) as applicable. This procedure is not meant to include off the shelf commercial software, databases, reports not used for product acceptance, or general information data). A monthly (maximum frequency) backup will be made and stored offsite or in a fireproof safe.

6.0 Records: All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| А | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Control of Records **Procedure Number:** 4.2.4

Page: 1 of 1

- 1.0 Purpose: This procedure establishes the method used to control, maintain, issue, and retain records at the C.A.P.C. facility.
- **2.0 Scope:** This procedure covers the control of all records as required by ISO 9001.
- 3.0 Definition: Record- Document stating results achieved or providing objective evidence of activities performed.

Retention Period - The minimum period of time quality records will be retained by C.A.P.C. prior to disposal, normally seven (10) years unless otherwise specified by contract.

- 4.0 Responsibility: The President or document control personnel will insure the compliance to this procedure.
- **5.0 Procedure:** All records that verify the integrity of C.A.P.C. products are kept for a minimum of 10 years. All records are maintained in a manner to preclude damage and deterioration. All records shall be available for review by C.A.P.C. customers or regulatory authorities as applicable. All supplier quality records concerning C.A.P.C. product including material and processing certifications will be retained for 10 years. Any special record retention or disposal requirements will be flowed down to the supplier as applicable. Records may be in the form of any type of media, such as hard copy or electronic media.
- **5.1 Identification Controls:** C.A.P.C. will identify and index all quality records by part number, supplier, and or customer. All quality records will be filed in cabinets, file boxes or appropriate electronic media and all files will be controlled and maintained by the President or document control personnel. Records shall be legible and identifiable.
- **5.2 Storage Control:** C.A.P.C. will store all records in cabinets, file boxes, or appropriate electronic media as determined by the President or document control personnel. All records will be stored in a manner that will prevent damage and deterioration. Records shall retrievable.
- **5.3 Protection Control:** In addition to internal control of damage and deterioration, C.A.P.C. will ensure the customer confidentiality by requiring all customer data in the possession of C.A.P.C. will be treated as confidential. All requests for customer information must be in writing on customer letterhead. All requests for information will be verified by the President. All customer records will be safely stored, and held in confidence to the client.
- **5.4 Retrieval of Records:** will be accomplished by the President or document control personnel who will control the records per customer and company policy based on the reason for retrieval (configuration change, updating, legibility, etc.)
- **5.6 Records Retention:** All records are the property of C.A.P.C. and are maintained through their life cycle in a systematic manner. Quality Records are retained for 10 years to comply with governmental, contractual or C.A.P.C. requirements, whichever is longer. The President 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 will be reviewed for customer disposition requirements, not to be less than 10 years.
- **5.7 Record Dispositions:** C.A.P.C. will disposition records based on customer requirements. When no customer requirements are in effect, C.A.P.C. may dispose of records after 10 years. While records are active they will be filed and controlled as documents per 4.2.3
- **6.0 Records:** All Documentation can be in the form of hard copy or other electronic media. As a minimum, the following documentation is controlled to meet quality requirements as applicable. Calibration Records, Contract Review Records, Customer P.O.'s, Corrective Actions, Preventive Actions, Inspection and Testing Records, Audit Reports, Approved Suppliers List / Quality Ratings, Management Review Records, Nonconforming Material Reports, Training Records, Quality Manual, Procedures, Stamp Log, Customer Quality Data, Company Quality Data (Work Orders, Invoice, Shipping Data), Monitoring Data, Programming, Set-up data that is revision controlled, regulatory agency quality data required for product or process acceptability and approved by the President as necessary for Quality history. All obsolete, uncontrolled, illegible documents are promptly withdrawn from use.

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| А | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Competence, Training and Awareness

Procedure Number: 6.2.2

Page: 1 of 1

- **1.0 Purpose:** This procedure establishes C.A.P.C.'s procedure for determining the necessary competence for personnel performing work affecting product quality. The responsibility to provide training, evaluating the effectiveness of the training, ensuring the relevance and importance of the activities to the C.A.P.C. personnel and to continually improve the work force skill, product performance, and services.
- 2.0 Scope: This procedure covers all personnel who perform a quality tasks to products for the completion of product realization per customer requirements as required by ISO 9001.
- **3.0 Definition:** Not applicable
- 4.0 Responsibility: It is the responsibility of the President or his designee to establish the method, parameter, and criteria for staff training.
- **5.0 Procedure:** The method of training may be formal or informal. All formal training programs are approved by the **President** or his designee before implementation. Each employee who performs a task, related to the customer, product or administration, may be required to meet minimum standards that can be achieved by C.A.P.C. training. All training records will be maintained in the Department that the person works for, the Quality Department, or in their personnel file. All specific quality tasks will be assigned on the basis of experience, education or training.
- **5.1 Competence Determination and Training Program:** *Employee Assessments* can be used to determine the employee's competence in their primary Job descriptions.

Job descriptions: Job descriptions will be developed for each job related to the customer, product, and administration or affecting quality that will note the competence requirements of the job described.

Group Training: Group Training records will be used to document training topics addressed to multiple employees.

OJT: On the Job Training may be used for developing an employee's productivity or skill. On the Job Training records will be 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.

Tests may be issued prior to employment, and during employment to assess job competence.

- C.A.P.C. training programs are coordinated to maximize efficiency, and improve essential processes and eliminating nonessential practices.
- **5.2 Scheduled Agendas:** All training classes are documented and approved by the **President** or his designee. C.A.P.C. training classes will be scheduled every other year with Employee Assessments being conducted annually. Quality Policy and Quality Objective training will be performed annually or when applicable changes are made. New employees will have current training records no later than 3 months after their hiring date.
- 5.3 Additional Responsibilities: Personnel proficiency is periodically assessed to determine requirements for additional training.
- **5.4 Evaluation of the effectiveness of the actions taken:** Evaluation of the effectiveness of the actions taken shall be performed by Employee Assessments, review of the work they performed based on work documents, observations, and/or performance reviews. The assessments will be conducted annually and initially within a year from the employees hire date.
- **6.0 Records:** All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| А | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: F.O.D. Prevention Procedure Number: 6.4

Page: 1 of 2

- **1.0 Purpose:** To establish a procedure for the control of Foreign Object Damage (F.O.D.) caused by the contact of material, fluids, or handling in the manufacturing, inspection, storage, or material handling process of customer or company products.
- 2.0 Scope: This procedure covers all products as required by ISO 9001.
- **3.0 Definition:** F.O.D. (Foreign Object Damage) any damage caused by material not normal to the product, which may be part of the processing or handling of the product. Damage caused by material not part of the processing of the product.
- **4.0 Responsibility:** The President or his designee is responsible for the content of this documented procedure and for ensuring that it is followed.
- **5.0 Procedure:** The identification of products for damage that is preventable shall be the responsibility of all company employees. When damage is found, the Quality Department will perform root cause analysis. All damage by foreign objects, (material such as staples, material handling products, nails, clips, wood, rubber, seals, cutting tool, paper, food, rags, pins, etc.) will be identified and the cause, location, operation, method of contact will be documented. Quality and Manufacturing will review the process where the contact took place, and correct the situation through Work Order correction, employee training, equipment improvement, removal or replacement of the offending material and or process alteration. The correction will be audited for verification of accomplishing the removal of the foreign object damage. Foreign object damage correction will be documented and will be reviewed by the Quality Department, and "as needed" Department management to note if like damage to other product may be prevented by means of applying the corrective action to those products.
- **5.1 Establishment of FOD Prevention Programs:** FOD training for the detection and prevention of FOD potential into product during manufacturing, inspection, assembly, handling, and packaging and shipment will be instituted for all employees applicable. FOD prevention and detection will be part of the manufacturing plan and will require visual inspection and verification. Internal Audits will be established to monitor the FOD program and acceptability. Prevention of FOD from Design of product through manufacturing/assembly, test and delivery. FOD potential cause and detection Flow will be established for all processes. The method of preventions will be noted and will be established as guidelines for detection.
- 1. As applicable Performance Measurements such as customer data, Internal Audit data, Monitoring data, and employee observations will be used to develop improvements in our FOD detection and preventive programs. These measurements may be rejection data or management reports to note improvements, upgrades, or status.
- 2. Internal FOD Training Programs: In addition to the training noted in section 5.1, specific training for possible unique FOD contamination will be included in the FOD prevention program. This may include inks, chemicals, foods, and dissimilar metals contamination.
- 3. All material handling and part protection will include the visual inspection for FOD detection and prevention. Cleaning of trays, carts, handling material, packaging material, storage areas, shipping, receiving, inspection and manufacturing areas will be reviewed for possible FOD contamination sources and prevention data as applicable.
- 4. Parts will be protected as applicable to include paper, wrapping, plugs, mesh, plastic covering, or other acceptable customer methods.
- 5. Facility Housekeeping will be pro-active for FOD prevention and Detection. Storage and manufacturing areas will be free of trash, debris, manufacturing contaminants such as chips, solvents, pallets, and handling material will be cleaned to ensure product will not be contaminated. Final inspection will include visual inspection for FOD.
- **6.** Tool accountability shall be established at every operation where tools, inserts, and or manufacturing or inspection aides may be accessible to product cavities, holes, enclosures, packaging, or any product area that may cause loss or damage. Tool accountability includes actual inventory of noted items as applicable to ensure product acceptance and FOD control.
- 7. Hardware accountability shall be established at every operation where inserts, hardware, fasteners, and or manufacturing or inspection aides may be accessible to product cavities, holes, enclosures, packaging, or any product area that may cause loss or damage. Hardware accountability includes actual inventory of noted items as applicable to ensure product acceptance and FOD control.
- 8. Lost Item Search and Documentation Process are performed under the controls established for "Non-conforming product procedure 8.3. The finding, immediate correction, containment, root cause, corrections, preventive action and documented corrective action to include as applicable, training, process, procedures, and/or policy changes are documented, verified as acceptable, and reviewed as applicable to ensure recurrence is not possible.
- 9. When areas that must be restricted for FOD criticality are identified, the access may be restricted, the area will be identified, and concerns will be posted. These areas will be audit for FOD controls.
- **10.** Focal points for FOD control will include all areas where product contacts other product, are machined, handled, stored, and/or transported. Flow charts and training data will be used to increase awareness of the Focal points.

Procedures Manual

Title: F.O.D. Prevention **Procedure Number:** 6.4

Page: 2 of 2

- **5.1 FOD prevention at lower tier subcontractor's facilities:** To facilitate sub tier FOD contamination from entering any company products through supplier material, processing, or manufacturing, Purchase order requirements for FOD control will be initiated, and a sub tier certification of FOD control may be required prior to acceptance of parts at receiving.
- **5.2 Specific Work areas standards:** As noted in section 5.1.2 unique and specific FOD prevention programs will be incorporated into the company FOD Program. These may include Flow charts, contamination lists, contamination sources, and FOD prevention lists.
- **5.3 Self-Assessments:** FOD Prevention audits and FOD Program acceptability data will be used for assessments that will be performed at least yearly. These may include Monitoring Data, Internal Audits, Inspection Reports, and/or FOD part or service reports.
- 6.0 Records: All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| Α | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Planning of Product Realization

Procedure Number: 7.0

Page: 1 of 3

- **1.0 Purpose:** This procedure establishes the methods used by C.A.P.C. to plan, implement and realize the contracted requirements of the product and the structure of the quality documentation from customer input through delivery that leads to the creation of the final product or service required by the customer.
- **2.0 Scope:** This procedure covers the Planning and Implementation of the necessary C.A.P.C. Documentation. This shall include as applicable Work Orders, Inspection Reports, and all other required quality planning to manufacture, and/or assembly, of product per customer requirement or as required by ISO 9001.
- **3.0 Definition:** *Product Realization*: Processes (from customer input through delivery) that lead to the creation of the final product or service. *Work Orders*: Step by step directions on how a task should be performed.
- **4.0 Responsibility:** The President will be responsible for the quality planning, the quality objectives, and will be responsible for the implementation of the quality plan through product realization processes. The President will assure that QMS procedures are readily accessible to personnel who are responsible for performing work in conformance to requirements, and to applicable customer and/or regulatory authorities.
- **5.0 Procedure: Planning of Product Realization (Work Orders):** The preparation of the Work Orders insures that the customer's quality requirements are adequately defined and documented.
- a) Planning, Quality Objectives and requirements for the product include consideration of aspects such as product and personal safety, to eliminate potential damage or danger that may be present in the product realization process at C.A.P.C.. Reliability, availability and maintainability, as determined by customer contract. Producibility and Inspectability, as determined by customer contract and as noted in the quality plans when applicable. Suitability of parts and materials used in the product, as determined by customer contract. Selection and development of embedded software, when a contract requirement and accepted for implementation by C.A.P.C., and recycling or final disposal of the product at the end of its life when mandated by customer contract.
- b) C.A.P.C. will establish and prepare applicable Processes, Documentation, and Provide the resources specific to the product. All required verification, validation, monitoring, measurement, inspection and test activities specific to the product and the criteria for product acceptance will be documented on the Work Orders. This data shall contain as necessary: drawings, (e.g., manufacturing plans, traveler, E.C.O.'s, process cards parts lists) inspection operations and documents; a list of specific or non-specific tools and NC (numerical control) machine programs; documents associated with specific tools enabling the tools to be designed, produced, validated, controlled, used and maintained. C.A.P.C. will maintain the records needed to provide evidence that the realization processes and resulting product meet customer requirements per procedure 4.2.4
- c) Configuration Management: The following are elements that will be controlled as required by the complexity and appropriateness of the product. Configuration Identification: This is the process of defining and identifying every element of the product. This will be documented on the Work Order. Configuration Control: this is a series of actions, which manages a design change from the time of the original proposal for change through implementation of approved changes. This will be accomplished by noting the current blue print/specification configuration per Customer contract on the C.A.P.C. work instructions, and the approval of those instructions by QA, or Senior Management to verify that the noted Blue Print matches the work instruction required, and that all processing is noted on the quality planning to the revision required on the Customer contract. Configuration Accounting; This is the process of recording the status of proposed changes and the implementation status of approved changes. This will be accomplished for C.A.P.C. Quality Documents on the contract review and in the customer's part number file, and by noting the customer configuration required on the contract review form.
- d) C.A.P.C. shall give consideration to the following activities, as appropriate, in meeting the specified requirements for products, projects or contracts: the identification and acquisition of any controls, processes, equipment (including inspection and test equipment), fixtures, resources and skills that may be needed to achieve the required quality, the design, manufacture, and use of tooling so that variable measurements can be taken, particularly for key characteristics; the establishment of appropriate process controls and development of control plans where key characteristics have been identified; the identification of any measurement requirement involving capability that exceeds the known state of the art, in sufficient time for the needed capability to be developed; the identification of suitable verification at appropriate stages in the realization of product; the identification of in process verification points when adequate verification of conformance cannot be performed at a later stage of realization; the identification and selection of subcontractors. The identification of material processes and services to support operation and maintenance of the product. Statutory and regulatory requirements related to the product that are necessary for the realization of the product will be noted on the work instructions, and/or quality plan, and placed in the part number file as a permanent record The above listed considerations will be documented on the contract review as required. Prior to the acceptance of any contract C.A.P.C. reviews every "Request for Quote" for the above considerations. Any consideration warrant of action will be addressed for feasibility, R.O.I., and schedule impact or for impact to current operations. This review may be in the form of documented memos, notes, or undocumented meeting proprietary to C.A.P.C..
- e) C.A.P.C. does not support the use and maintenance of the product it produces.

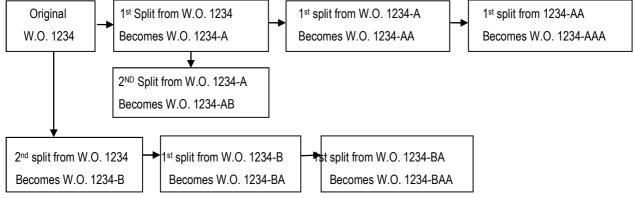
Procedures Manual

Title: Planning of Product Realization

Procedure Number: 7.0

Page: 2 of 3

- f) Production and Inspection Operations shall be carried out sequentially as documented on the approved Work Order. The operation needs to be signed 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 operation was completed. Any additional required customer or applicable traceability data associated with the operation must be documented. If the previous operation was not properly completed do not proceed with the current operation unless changes to production processes are properly approved by the President or his designee. Inspection of the production operations may be documented on the Work Order without creating inspection reports. The quantity and as required inspection criteria (per specification, customer requirement, Blue Print, operational sketch, etc.,) and method (visual, variable, gageing, dimensional, tooling, or certification inspection) will be documented for in-process and or final inspection. When sampling is required it will be per customer requirements and/or industry acceptable specifications such as ANSI Z1.4. The sampling will be statistically sound and C=0 must be maintained.
- g) Control of Production Process and Data Changes: Persons required approving changes to production processes shall be the President or his designee. All Customer controlled design data cannot be changed without customer acceptance in accordance with contractual requirements prior to making any change. Changes affecting processes, production equipment, tools and programs shall be documented as applicable on the Work Order. The results of changes to production processes shall be inspected and documented on an inspection report to confirm that the desired effect has been achieved without adverse effects to product quality. Data changes are to be crossed out with a single line; then initialed and dated with the correct data being re-documented within the immediate vicinity or the original correction.
- h) Special Processes: Where the results of processes cannot be fully verified by subsequent inspection and testing of the product; the processes shall be carried out by qualified operators and/or suppliers to ensure that the specified requirements are met. The requirements for any qualification of process operations, including associated equipment and personnel (see 6.2.2) shall be specified. Records shall be maintained for qualified processes, equipment and personnel, as appropriate (see 4.2.4). When production operations call for special processes validation prior to production use shall include verification of the first article produced to the design data/specification. C.A.P.C. shall control applicable aspects of special processes, as defined by the process specifications; this includes special process changes; C.A.P.C. shall define the significant operations and parameters in the process to be controlled during production. This shall be defined in the purchase order or attachments supplied with the purchase order as applicable. Storage requirements, including periodic preservation/condition checks, shall be established for production equipment or tooling in storage.
- i) Repair Planning: C.A.P.C.'s Repair capabilities are limited to customer contract requirements and may include manufacturer's data, drawings, specifications, or other technical data. All repairs are documented and all repairs are inspected to customer data. C.A.P.C. will not install or perform field installation or service. All repairs are submitted to the customer who controls all end use of the repaired item. C.A.P.C. will only repair items for which it has the technical and quality capabilities. C.A.P.C. will not accept repair work which exceed its capabilities or require functional testing.
- j) Work Order "Splits" Control: Work Order splits MUST retain the traceability of operations, material, inspections, and manufacturing data. All splits will retain the same Work Order number as the original Work Order with the addition of the designated "LETTER" as explained below. Work Order splits will be controlled as follows:
- 1. Make a copy of the Work Order being split. On the Work Order being split, at the Operation that the split occurs write the <u>"QUANTITY"</u> that is being split, and the phrase <u>"TRANSFERRED TO WORK ORDER"</u> and the <u>"LETTER"</u> of the split sequence. See example below.
- 2. On the copy of the Work Order, add the appropriate "LETTER" to the Work Order Number to signify the level of the split. In the remarks column write "TRANSFERRED FROM WORK ORDER #XXXXXX AT OPERATION #XXXXXX"
- 3. Continue manufacturing both Work Orders through the remaining operations. If more "splits" are required, follow the steps below.



Procedures Manual

Title: Planning of Product Realization

Procedure Number: 7.0

Page: 3 of 3

- k) Frozen Planning Requirements: C.A.P.C. will develop manufacturing planning and develop controlled processes per customer requirements and when required by contract shall not change the planning or processes (frozen planning and processes). These plans and processes shall be identified on the Work Orders that they are customer controlled and cannot be changed without written customer authorization. All "Frozen Planning or Processes will be revision controlled. No change will be implemented without customer written authorization, and when the customer authorizes a change, the Work Orders will be changed per the customer written instructions and the revision of the Work Order will be changed and recorded in the customer, part number, and or Work Order file. Review and control of these plans will be the responsibility of the President or his designees as required. The management designees may consist of qualified personnel equipped with adequate resources to assure development of complete, reliable and traceable documentation, Parts manufactured utilizing these plans shall meet all contractual requirements. Once frozen, plans shall 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.
- I) Proprietary Processes/Products: C.A.P.C. will be controlled in the same manner as "Frozen Planning or Processes". Written customer authorization, controlled processes, no change without authorization, and revision control documentation.
- m) Multiple Operations or Machine Centers: When an operation is being performed on multiple machines, the basic operation will be noted on the traveler, and the specific machine or operation will be noted as either an attachment on a separate sheet, or on the Work Order. All separate operations noted will be traceable and the quantities controlled. When multiple operations are being performed on multiple machines at the same time, each basic operation will be noted on the Work Order, and the specific machine or operation will be noted as either an attachment on a separate sheet, or on the Work Order.
- n) Control of Work Occasionally Performed outside the Supplier's Facilities: This element is not part of our normal business charter. When planning to carry-out work at a location other than its normal facilities, C.A.P.C. shall define the process to be implemented in the purchase order to the supplier, contract facility.
- o) Completed Work Orders will be filed by Customer and or Job number and maintain per procedure 4.2.4. Completed parts will be placed in stock, or shipped to customer per customer requirements. Work Orders that are discovered to be incomplete for any reason will be returned to manufacturing for correction.
- **6.0 Records:** All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records", Work Orders / Travelers / Shop Instructions, Manufacturing Documents

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| Α | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Contract Review Procedure Number: 7.2

Page: 1 of 1

- **1.0 Purpose:** This procedure establishes the methods used by the President to determine the requirements of the customer relating to the product, and the review of the requirements by means of a contract review.
- **2.0 Scope:** This procedure covers all contracts received by C.A.P.C. as required by ISO 9001.
- **3.0 Definition:** Amendment A change or revision to a RFQ, solicitation for bid or PO.

Contract Review: The job estimating, planning, comprehensive review, and scheduling effort performed by C.A.P.C. to meet customer requirements. The complete review and planning of all contractual requirements into process control plans or job travelers

Purchase Order (PO): A contract between C.A.P.C. and a customer for a product or a service that becomes binding upon acceptance by C.A.P.C..

Tender/Request for Quotation (RFQ): Request For Quotation or solicitation for bid normally submitted by customer procurement representatives that notes the customer requirement for products or a services.

- 4.0 Responsibility: The President will do the contract review; the Work Order will be created from the Contract Review.
- **5.0 Procedure, Tender Review:** All tenders will be reviewed by Quality and or manufacturing to determine if all customer requirements are defined. If any requirement is not clear, the customer will be notified by Quality or Contracts for clarification. When all requirements are clearly defined, Quality and or Manufacturing and all required company personnel will review the tender to make certain that C.A.P.C. has the capability to meet the requirements, the capacity to meet the requirements in the time frame required, and obtain the required material, processing, equipment, testing, and inspection required. Tenders will be addressed to the customer by the President or his designee. The tenders may be accepted, rejected, accepted with modifications, or placed on hold until notification by the customer.
- a) Tender Review Documentation: Due to the variety of customer tender submittal formats, and the type of tenders received (verbal, fax, email, engineering documents, formal contract request, customer forms for RFQ, partial service, engineering tenders, prototype, etc.) C.A.P.C. will respond in a manner that is acceptable to the customer. C.A.P.C. may document tender review on their contract review form and or on company stationery with "as required data" for retention to be used when the tender is submitted as a contract by the customer.
- **5.1) Contract Review:** C.A.P.C. reviews every contract and documents the customer requirements on the "Contract Review" data sheet to make sure that the requirements are adequately defined and documented. Where no written statement of requirement is available for an order received by verbal means, C.A.P.C. shall ensure that the order requirements are agreed before their acceptance. C.A.P.C. Contract reviews also note that any difference between the contract requirements and the tender received by C.A.P.C. Contract issues requiring clarification, correction, or resolution of requirements shall be resolved in accordance with customer contract requirements where applicable prior to contract acceptance by C.A.P.C. C.A.P.C. has to ensure the capability to meet the contract requirement, and that all quality requirements are addressed during contract review. Special requirements of the product are determined and as applicable documented at contract review and included into the Work Order to ensure compliance. All risks associated with new technology and/or short delivery time scale will be evaluated when the President (prior to quoting a job) has reviewed the "Request for Quote" or applicable Tender data from the customer. Other risks as determined by management may be noted in the contract review document. Additional data may be documented and attached via the Work Order. In some situations, such as established contracts where only an "Add On" or additional parts are ordered to the exact requirements of prior orders, a full documented contract review need not be created, a note on the existing customer document or company contract review document notation with the relevant product information will suffice.
- a) Revision Verification and Distribution: The President will verify that C.A.P.C. has the agreed upon revision/configuration that is in the latest customer purchase order. This will be done by noting the revision on the "Contract Review" form and obtaining the correct revision from the customer.
- b) Amendments: All amendments will be reviewed and will go through the same cycle as new contracts. All quality planning will be initiated on a QA review and distributed as necessary.
- 6.0 Records: All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| А | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Purchasing

Procedure Number: 7.4

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 supplier and the purchased product shall be dependent upon the effect of the purchased product on subsequent product realization or the final product.
- 2.0 Scope: This procedure covers machining, processing, servicing, raw material, and manufacturing service suppliers.
- 3.0 Definition: Approved Supplier Quality Delivery Sheet A controlled list of suppliers that have been approved to provide a product or service.
- 4.0 Responsibility: It's the responsibility of the President or his designee to ensure compliance to this procedure.
- **5.0 Procedure; Purchasing Process:** C.A.P.C. shall be responsible for the conformity of all products purchased from suppliers, including product from sources defined by the customer. The organization shall evaluate and select suppliers based on their ability to supply product in accordance with the organization's requirements. Criteria for selection, evaluation and re-evaluation shall be established. Records of the results of evaluations and any necessary actions arising from the evaluation shall be maintained per procedure 4.2.4. C.A.P.C. as applicable Shall:
- a) Maintain a register of suppliers that includes approval status (e.g., approved, conditional, disapproved) and the scope of the approval (e.g., product type, process family). The register of suppliers and scope of approval will be noted in the Approved Supplier Quality Delivery Sheet and will be continually upgraded as required. To ensure the Approved Supplier Quality Delivery Sheet is accurate, the accounting data and the receiving data will be cross referenced to ensure all applicable suppliers and their data is obtained. All supplier data will be verified as acceptable by the President or his designee. The Approved Supplier Quality Delivery Sheet will be updated annually at a minimum. Define the type and extent of control exercised by the supplier over subcontractors. This shall be dependent upon the type of product, the impact of subcontracted product on the quality of final product and, where applicable, on the quality audit reports and/or quality records of the previously demonstrated capability and performance of subcontractors

Evaluation of Subcontractors: C.A.P.C. shall evaluate and select subcontractors on the basis of their ability to meet subcontract requirements including the quality system and any specific quality requirements; C.A.P.C. qualifies each supplier by one or more of the following:

Quality History: Analysis of the supplier's product or process through receiving inspection, testing, certification review, etc. Previous history; where the supplier's Quality and Delivery data are acceptable to the customer as determined by C.A.P.C.

Supplier Survey: A Supplier Survey of the suppliers QMS, Process and/or capabilities to meet C.A.P.C. and customer flow down requirements will be performed every 2 years on suppliers that do not have an Accredited or Certified QMS or Process.

Accreditation-Certificated: Certification review (Online, Electronic, Fax or Hard Copy verification) of the Suppliers certified QMS or Process will be performed on the first of the month after the current certification expiration date. This is to ensure adequate time for QMS or Process reapproval.

Supplier Quality Data: from objective and reliable external sources, as determined by the President (customers, quality management system or process certification bodies, organization approvals from government authorities).

Customer Approved List

Supplier Approval: All suppliers who wish to supply commodities for use in C.A.P.C. products must be approved. Evaluation and approval are conducted or assessed at the C.A.P.C. facility, supplier facility, customer approval, or by an outside independent entity. Approved or conditionally approved suppliers are used for all purchased parts, material and services that go into manufactured products and/or material supplied to customers. The President or his designee is responsible for approving or conditionally approving suppliers and the maintenance of the Approved Supplier Quality Delivery Sheet. NADCAP accredited suppliers will be given preference when all criteria is approximately equal. If specifications and/or drawings do not specify a supplier, any approved supplier capable of producing the required material may be used. C.A.P.C. may source inspect parts at suppliers location as required. Source inspection does not preclude rejection by C.A.P.C. if nonconforming material is found at subsequent operations. Suppliers will maintain their approval status if they meet C.A.P.C. purchase order requirements. Numerical values for quality and delivery will be noted, but based on commodity, ability to replace the supplier, customer requirements, prior quality history, and importance to C.A.P.C.'s ability to meet customer expectation; each supplier will be evaluated by the President for their retention on the C.A.P.C. Approved Supplier Quality Delivery Sheet. Records of the results of evaluations and any necessary actions arising from the evaluation shall be maintained per procedure 4.2.4.

b) Periodically review supplier Quality and Delivery performance; the results of these reviews shall be used as a basis for establishing the level of controls to be implemented, this review shall be performed at least once each calendar year. C.A.P.C. reviews supplier Quality and Delivery performance annually on the Approved Supplier Quality Delivery Sheet. The completed Approved Supplier Quality Delivery Sheet is maintained in a supplier Quality file. Substandard performances ratings for Quality or Delivery are subject to review; conditional approval or disapproval and possible removal from the ASL. If the supplier is conditionally approved it is the President's responsibility to assure that the conditions required for reapproval are met. When required conditions are met, the supplier is added to the ASL. If the conditions are not met, the supplier is disapproved.

Procedures Manual

Title: Purchasing **Procedure Number:** 7.4

Page: 2 of 3

c) Define the necessary actions to take when dealing with suppliers that do not meet requirements Ensure that the organization having responsibility for approving subcontractor quality systems has the authority to disapprove the use of sources.

Supplier Disapproval: When a supplier is determined to be unfit for retention on the C.A.P.C. Approved Supplier Quality Delivery Sheet, the President or his designee will remove the supplier from the C.A.P.C. Approved Supplier Quality Delivery Sheet and notify them as applicable. Because C.A.P.C. cannot mandate customer ASL, limited commodities or materials, processing suppliers lead time, National policy of foreign suppliers, supplier disapproval will be based on individual supplier action.

- d) Ensure where required that both the organization and all suppliers use customer-approved special process sources. Customer specified suppliers will be used per customer written requirements. C.A.P.C. will ensure where required that both the supplier and all subcontractors use customer approved special process sources, when customer mandated suppliers do not meet C.A.P.C. purchase order requirements, the customer will be notified as applicable. These suppliers will be retained on the C.A.P.C. Approved Supplier Quality Delivery Sheet as determined by the customer. Customer End-User Identification Requirements: When required by contract or customer specification; where a customer such as Boeing or UTC member owns the design of an article purchased from C.A.P.C. who further subcontracts all or portions of that work to other subcontractors (second-tier), C.A.P.C.'s Purchase Order must state that the articles are for applicable customer member's "end use" and must be controlled per applicable Purchase Order requirements of both C.A.P.C. and the End-User customer.
- **e)** The President or his designee will be responsible and have the authority for the approval status decision, changes of the approval status and conditions for the controlled use of suppliers depending on the supplier's approval status.
- f) Determine and manage the risk when selecting and using suppliers. All risks associated when selecting and using suppliers will be evaluated when the President has reviewed the "Request for Quote" or applicable Contract data from the customer. Other risks as determined by management may be noted on additional data such as Purchasing Documentation, Checklists and may be documented and attached via the Work Order.
- **5.1 Purchasing Information**; *Terms and Conditions*: All purchase orders issued to suppliers will note the applicable terms and conditions or will reference the applicable terms and conditions clauses from a list submitted to the supplier. C.A.P.C. shall issue purchase orders to suppliers that contain data clearly describing the product ordered, purchasing information shall describe the product to be purchased, including where applicable:
- a) Requirements for approval of product, procedures, processes and equipment,
- b) Requirements for qualification of personnel,
- c) Quality management system requirements,
- d) The identification and revision status of specifications, drawings, process requirements, inspection/verification instructions, the type, class, grade or other precise identification and other relevant technical data,
- e) Requirements for design, test, inspection, verification (including production process verification), use of statistical techniques for product acceptance, and related instructions for acceptance by the organization, and as applicable critical items including key characteristics.
- f) Requirements for test specimens (e.g., production method, number, storage conditions) for design approval, inspection / verification, investigation or auditing,
- g) Requirements regarding the need for the supplier to notify the organization of nonconforming product, obtain organization approval for nonconforming product disposition, notify the organization of changes in product and/or process, changes of suppliers, changes of manufacturing facility location and, where required, obtain organization approval, and flow down to the supply chain the applicable requirements including customer requirements,
- h) Records retention requirements, and
- i) Right Of Access: C.A.P.C. shall ensure the right of access by C.A.P.C. employees, their customer, and regulatory authorities to all suppliers, at any level of the supply chain involved in supplying service, material, or products and to all applicable records, and requirements for the supplier to flow down to sub-tier suppliers the applicable requirements in the purchasing documents, including key characteristics where required. This requirement shall be documented on C.A.P.C. Terms and Conditions, or on purchase order(s) given to the supplier.
- C.A.P.C. will ensure the adequacy of specified purchase requirements prior to their communication to the supplier.
- **5.2 Verification of Purchased Product:** C.A.P.C. shall establish and implement the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements. By any of the following: objective evidence of the quality of the product from suppliers (e.g. accompanying documentation, certificate of conformity, test reports, statistical records), Inspection and audit at supplier's premises as applicable, Review of the required documentation, Inspection of products upon receipt, delegation of verification to the supplier, and or supplier certification. Purchased product shall not be used or processed until it has been verified as conforming to specified requirements, unless it is released under positive recall instructions.

Procedures Manual

Title: Purchasing **Procedure Number:** 7.4

Page: 3 of 3

Where C.A.P.C. utilizes test reports to verify purchased product, the data in those reports shall be acceptable per applicable specifications. C.A.P.C. shall validate test reports for raw material when required by customer contract. Raw material certification(s) will be submitted for sample verification at the discretion of the President or if required by customer contract. Where C.A.P.C. delegates verification activities to the supplier, the requirements for delegation shall be defined in the Purchase Order to the supplier and a register of delegations maintained. Verification by customers shall not be used by C.A.P.C. as evidence of effective control of quality by the supplier, nor shall it preclude subsequent rejection by the customer. When C.A.P.C. stipulates in any contract that purchased product or service is subject to source inspection by C.A.P.C. or C.A.P.C. customer, the details for such inspection and subsequent release of accepted material is stated in the purchase agreement.

Supplier Verification at Subcontractor's Premises: Where the supplier proposes to verify purchased product at the subcontractor's premises, the supplier shall specify verification arrangements and the method of product release in the purchasing documents.

Customer Verification of Subcontracted Product: Where specified in the contract, the supplier's customer or the customer's representative shall be afforded the right to verify at the subcontractor's premises and the supplier's premises that subcontracted product conforms to specified requirements. Such verification shall not be used by the supplier as evidence of effective control of quality by the subcontractor. Verification by the customer shall not absolve the supplier of the responsibility to provide acceptable product, nor shall it preclude subsequent rejection by the customer.

Delegation of Supplier Verification to Subcontractors: C.A.P.C. defines the requirements for delegating verification of purchased product to subcontractors. Authority is not be delegated until the subcontractor has demonstrated a high level of system and product quality. C.A.P.C. will not delegate authority without prior written approval of the customer quality representative. C.A.P.C. will withdraw delegated product verification authority from the subcontractor when the level of system and product quality is no longer acceptable.

- **5.3 Outsource Supplier Control:** Outsourced products, material or services does not absolve C.A.P.C. of its responsibility of conformity to all customers, statutory and regulatory requirements. The type and extent of control applied to the outsourced process can be influenced by factors such as (a) the potential impact of the outsourced process on C.A.P.C.'s capability to provide product that conforms to requirements, (b) the degree to which the control for the process is shared, (c) the capability of achieving the necessary control through the application of this procedure.
- **5.4 Corrective Action:** All suppliers are subject to corrective action in accordance to procedure 8.5.2. Any supplier with continuing substandard performance and who is unwilling or unable to correct the conditions and in accordance to paragraph 5.15 is subject to removal from the ASL.
- **6.0 Records:** All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| А | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Control of Production Equipment, Tools and Software Programs

Procedure Number: 7.5.1.3

Page: 1 of 2

- 1.0 Purpose: This procedure establishes the method used by C.A.P.C. to provide control for the Control of Production Equipment, Tools, Fixtures, and Software programs that may control Inspection equipment, Numerical Control (NC) Machines, and/or Processing Equipment. This procedure also establishes the methods and responsibilities for C.A.P.C. to control the traceability and revisions for the machine programs. Some elements of this procedure are customer specific and are only applicable when required by customer contract. Fixturing and tooling when required by customer contract and that is part, job, machine, detail specific and identified for that purpose and/or required by customer tooling procedures and contracts. This procedure need not apply to variable tooling such as vises or tooling used for part holding where there is no part specific intent and it may be used for multiple parts, machines, and/or purposes.
- **2.0 Scope:** This procedure applies to all Departments that use production equipment, tools and Software Programs for Manufacturing, inspection, or processing.
- **3.0 Definition:** *Tools* are controlled fixtures, molds, tooling, or software for machining, inspection or holding in the inspection and/or manufacturing process used for specific product or processes. For this procedure, tools shall not be interchangeable variable tools that are used for multiple purposes and are not specific to the process or product. Non-production tooling, programs, or equipment are not applicable to this procedure. Engineering, manufacturing holding tooling, single use or prototype equipment, tools, or programs are not applicable to this procedure. This does not include clerical based software that does not control equipment movement, acceptance, and/or control of product.
- **4.0 Responsibility:** It is the responsibility of the President to ensure compliance to this procedure.
- **5.0 Procedure:** C.A.P.C. shall issue tooling for the manufacture, assembly or inspection of product. The tooling shall be issued from controlled storage that may be located throughout the company. C.A.P.C. shall ensure that all tooling is at the designated configuration levels/revisions for the part or assembly being produced. When appropriate, C.A.P.C. shall initiate coordination and negotiation with an authorized customer procurement representative for proper configuration alignment
- **5.1 Production Equipment, Tools and Programs and shall be validated prior to use:** C.A.P.C. will ensure that tooling, programs and equipment are capable of producing the results of its intended production use. This will be ensured by the manufactures certification or quality data, inspection of the product the equipment produces, imbedded software verification of programs used to a known artifact or gages, or by prior quality history of the output of the software or product. Tool validation is ensured by the tools prior quality history of the product the tool produces.
- **5.2 Control of Production Equipment, Tools and Numerical Control (N.C.) Programs**: Production equipment, tools and programs shall be controlled, maintained and inspected periodically according to location and to control the work. *Equipment;* All equipment used in the production process shall be maintained in acceptable operating condition. This may be accomplished by company or contracted maintenance as required in the opinion of the **President**, and by the inspection of the product the equipment produces. *Tools;* Control will include visual inspection of tools for wear, damage, or acceptability. When any tool is determined to be unacceptable, it will be fixed or replaced. All equipment and tooling will be reviewed by the **President** to verify that the required precision necessary for product acceptance can be achieved. *Programs;* C.A.P.C. will control programs in electronic files on computer drives, or storage media. The programs will be controlled by part number, and/or job number. The programs will be verified prior to being stored by simulation or verification software or inspection of the product. When the program cannot perform as required, it will be removed from service. The back-up of programs will be part of the quality software back-up system.
- **5.3 Production Equipment, Tools, and Programs shall be maintained:** *Equipment;* C.A.P.C. will perform preventive maintenance of production equipment based on a documented schedule, manufactures recommendation, and/or usage history. Repairs, upgrades, and overhauls will be performed when the equipment cannot produce product within desired tolerance as determined by the **President**. When the production equipment cannot perform as required, it will be removed from service. *Tools*; C.A.P.C. will review each tool prior to each use for nicks, dings, missing or broken components or damage to ensure that the tools can produce the desired output. When the production tools cannot perform as required, it will be removed from service. *Programs*; C.A.P.C. will maintain programs in electronic files on computer drives, or storage media.
- **5.4 Production Equipment, Tools and Programs shall be inspected periodically:** *Equipment;* C.A.P.C. will ensure that production equipment is periodically inspected. This will be ensured by the preventive maintenance process and by production equipment being visually inspected for safety features, operational features, and as needed power, fluids and for damage. NC and CNC equipment equipped with diagnostic software will not be operated when the software determines that the equipment is unfit for use. *Tools;* C.A.P.C. will visually review tooling for nicks, dings, missing or missing, broken or worn components or damage to ensure that the tools can produce the desired output and for dimensional acceptability as required. Tooling with blue print control or dimensional requirements will be inspected for the dimensions that the tool creates or controls as well as the above noted inspections. Tooling will be delegated to the appropriate personnel as required. When the production tools cannot perform as required, it will be removed from service. As the frequency of use for tools cannot be determined, periodic inspection will be defined as annually or prior to use.

Procedures Manual

Title: Control of Production Equipment, Tools and Software Programs

Procedure Number: 7.5.1.3

Page: 2 of 2

Programs; Inspection equipment, Numerical Control (NC) Machines, and/or Processing Equipment software or programs will be inspected prior to each use. C.A.P.C. will ensure that the software or programs are capable of producing the results of its intended production use. This will be ensured by verification software, simulation software, inspection of the product the program produces, imbedded software verification, known artifact or gages, or by prior quality history of the output of the software or product. or by prior quality history of the product the program produces. As the frequency of use for programs cannot be determined, periodic inspection will be defined as prior to use.

- **5.5 Storage requirements:** The storage of tooling will be in locations that are convenient to the tooling use, without compromising control or damage prevention. All applicable tooling shall be appropriately protected to prevent loss, theft, damage, and deterioration. The checks will include visual checks for damage, preservation, condition, and broken or missing parts. All tooling shall be stored in such a manner as to prevent damage. Equipment and tooling in storage will be checked annually using a Tooling Audit to ensure equipment and tooling are stored in such a manner as to prevent damage. Tooling may be verified prior to use and may be reviewed periodically to a defined schedule when required by customer contract.
- **5.6 Identification.** Tooling shall be identified when job specific. Identification may be by labeling, vibro peening, or other suitable methods. Tooling that is interchangeable or process specific will be logged for asset control, but does not need individual identification.
- 5.7 Usage, Each Use Condition Checks, and Periodic Inspections: (All sections of 5.7 as required by customer contract) C.A.P.C. shall ensure the correct configuration of special tooling, including multi-configuration capable applicable tooling, is used during the manufacture of Government and/or customer products. When configuration alignment issues arise during usage, each use condition check, or periodic inspection, C.A.P.C. shall immediately notify the customer to initiate resolution. When necessary, C.A.P.C. shall initiate a nonconformance and identify, document, and segregate the applicable tooling from manufacturing use until a resolution or alternative method is authorized in accordance with this document. When correction of nonconformance exceeds C.A.P.C. capability, C.A.P.C. shall contact the customer for resolution.
- **5.7.1 Each Use Condition Check**: C.A.P.C. checks the condition of Government, customer or C.A.P.C. owned tooling prior to each use. A special tool shall only be used for the specific purpose for which it was intended. C.A.P.C. shall ensure that applicable tooling functions are correctly implemented and properly maintained. Any discrepancies found during the condition check shall be documented and addressed in accordance with C.A.P.C. procedure for Nonconforming Product 8.3.
- **5.7.2 Periodic Inspection:** As required by customer contract, C.A.P.C. shall document any periodic inspection to tools and fixtures that may include inspection data, labels that note the expiration date, acceptance status, and inspection authority as defined by customer contract. At a minimum, the C.A.P.C. periodic inspections will be based on the inspection of the product/part the tooling fixture produces.
- 5.7.3 Inspection Tooling used during FAI for product acceptance must show evidence of acceptance status prior to use.
- **5.8 Defective Tooling.** When nonconformances are found on tooling, C.A.P.C. shall ensure that the applicable tooling is identified and controlled to prevent unintended use. C.A.P.C. shall immediately report applicable nonconformances to the customer. Discrepant customer tooling shall not be used until a customer disposition is received in writing. All tooling that is defective must be removed from service and controlled according to C.A.P.C. procedure for Nonconforming Product 8.3. The discrepant tooling must be reinspected as "new" when repaired or reworked. Only inspected and acceptable tooling will be placed into service.
- **5.9 Tool Inventory Log. (As applicable)** A tool log or database may be used to track tooling location and inventory for customer tooling or part specific tooling. The tool inventory log will be controlled by the **President**. Shelves and/or racks identified for tool or fixture storage may be used when the tools/fixtures or containers are identified.
- 6.0 Records: All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records", Production Programs

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| А | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Control of Customer Property

Procedure Number: 7.5.4

Page: 1 of 1

- **1.0 Purpose:** This procedure defines the method used by C.A.P.C. in the control of customer property. Customer property can include intellectual property, including customer furnished data used for design, production and/or inspection.
- 2.0 Scope: This procedure applies to all departments using customer property.
- 3.0 Definition: Not applicable.
- **4.0 Responsibility:** It is the responsibility of the President to insure compliance to this procedure.
- 5.0 Procedure:
- **5.1 Receiving Inspection:** C.A.P.C. will verify that all customer property meets the purchase order/blue print/specification requirements by processing all customer-supplied products through the C.A.P.C. receiving, and receiving inspection departments. All customer property will be inspected, audited for conformance and will be accepted or rejected according to C.A.P.C. quality procedures.
- **5.2 Rejections:** All rejected or deteriorated customer property will be documented and segregated and the customer will be promptly notified. The disposition of non-conforming customer property will be made by the customer, and will be documented in writing by the customer. C.A.P.C. will not accept any nonconforming customer supplied product unless directed to do so by the customer in writing.
- **5.3 Identification:** Customer property required for a specific part will be identified on the work instructions for all work in-process, and will be identified on the stock log for all items that are placed in stock, identified by tool number, program number, inspection item number, and/or other applicable identification based on the type and medium of the customer property.
- **5.4 Storage:** C.A.P.C. will store and maintain all customer property in the same manner as C.A.P.C. purchased or manufactured items. Stockable customer property will be issued to stock via the same documentation as C.A.P.C. purchased items. Those items requiring special storage will be stored as required, with the special conditions being addressed in the customer purchase order, and planned for by quality, manufacturing and production control.
- 6.0 Records: All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| Α | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Handling, Storage, Packaging, Preservation, and Delivery

Procedure Number: 7.5.5

Page: 1 of 2

- **1.0 Purpose:** The purpose of this procedure is to define the general requirements and methods for handling, storage, preservation, packaging and delivery of material at C.A.P.C.
- **2.0 Scope:** This procedure covers all Departments.
- 3.0 Definition: Not applicable.
- **4.0 Responsibility:** The President will be responsible for implementation of this procedure.
- **5.0 Procedure:** A system is maintained governing the handling, storage, packaging, and delivery of selected material and product. Controlled and lot traceable material and supplies are stored in approved locations and handled and packaged to prevent damage or degradation. All products at C.A.P.C. are handled to prevent damage and deterioration and stored, packaged, protected through all phases of production and after final inspection and extended to include delivery according to customer or this approved procedures.
- **5.1 Material Protection and Handling:** C.A.P.C. personnel receive issue and store all material in the received or equivalent container unless special protection or handling is established by C.A.P.C. or the customer. All products shall be handled in a manner to prevent damage or deterioration by use of padded or protective material handling units, and methods. Sensitive material is handled to prevent damage and is documented on the work instructions as required. **Material Storage:** Controlled and lot-traceable items are counted, measured or weighed to the unit of measure shown on the purchase order or move order accompanying the material. 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 accepted through the Work Order process can be released to stock by the Quality Department. Product will be removed from stock by the creation of a shipper for final product and will be final inspected for all customer requirements, documentation and identification prior to shipment. Final inspection will be accomplished per inspection procedure.
- **5.3 Packaging:** Products are packaged to customer procedure, or industry standard commercial packaging. When product has been cleaned by commercial cleaning processes, and is to be directly shipped to the customer or to stock, they will be covered throughout all subsequent operations, the container will be visually inspected to verify no contamination occurs, and all parts requiring caps, thread protection, or encapsulation will be inspected for acceptability. When parts are cleaned at C.A.P.C. and continue further processing, they will be visually inspected for acceptability, protected against contamination by covering or protecting the product and by verification that the container will not contaminate the product. When any product is determined to be unacceptable for cleaning requirements of C.A.P.C. or the customer, they will be controlled per the procedure for Non-conforming product. As a minimum the parts will be re-cleaned and re-inspected until acceptability has been achieved and documented. Identification will be per customer requirement, and will be noted on the work instruction for the current status. Inspection of the Identification will be controlled by documented instructions as required for protection to specification (caps, plastic container, boxing requirement, packaging material requirements for thickness, class, cleanliness, sealing methods to assure isolation of the product from other product or the environment, the use of thread protecting caps, plugs, dividers, and packaging requirements specific to the customer, their customer, transportation companies, and or regulatory agencies.
- **5.4 Preservation:** C.A.P.C. preserves parts to prevent damage or deterioration during all product realization processes, and additional preservation per customer requirements will be documented on work instructions and complied with.
- **5.5 Delivery:** The Shipping Department will deliver parts per customer requirements and additional delivery requirements per customer contract will be documented on work instructions and complied with.
- **5.6 Cleaning:** Shop cleaning shall consist of removal of trash accumulation, the cleaning of work areas of general clutter, and the cleaning and maintenance of shop equipment, and facility and additional cleaning per customer requirements will be documented on work instructions and complied with.
- **5.7 Prevention, Detection, and Removal of Foreign Objects:** C.A.P.C. shall maintain machining, assembly and work areas free of trash, accumulated metal chips, and foreign objects such as staples, paper clips, and items that would be detrimental to the performance of any C.A.P.C. product. C.A.P.C. shall daily perform cleanup of its work areas to remove foreign objects.
- **5.8 Marking and Labeling including Safety Warnings:** Marking or labeling of product will be per customer requirements. Shop signs will designate areas for authorized personnel, safety warnings, safety equipment placement, and as needed warnings for cleaning, repair, or temporary hazards.
- **5.9 Shelf Life Control and Stock Rotation:** C.A.P.C. shall maintain shelf life control as required. This will consist of removal of expired items and disposal per manufacturers' guidelines. All shelf life item stock will be labeled with the expiration date, and will be monitored monthly by the Quality Department. Stock will be lot controlled with revision control. The stock will be used in the first in first out method whenever practical.
- **5.10 Hazardous Materials:** All hazardous materials will be stored per manufacturers' requirements. All hazardous material will be identified; the control of hazardous material will be the responsibility of the Quality Manager.

Procedures Manual

Title: Handling, Storage, Packaging, Preservation, and Delivery

Procedure Number: 7.5.5

Page: 2 of 2

6.0 Records: All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| Α | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Control of Monitoring and Measuring Equipment

Procedure Number: 7.6

Page: 1 of 3

- **1.0 Purpose:** This procedure establishes the methods used to control mechanical instruments that are used for manufacturing and inspection conducted at the C.A.P.C. facility.
- **2.0 Scope:** This procedure applies to all Departments that are required to maintain Control of Inspection, Measuring and Test Equipment. This procedure establishes the methods used to control electronic, hydraulic, and mechanical instruments that are used for manufacturing, testing, and inspection conducted at the C.A.P.C. facility.
- 3.0 Definition: Inspection and Test Equipment Measuring devices or tools and equipment used to determine formal acceptance of product.
- *N.I.S.T.* The National Institute of Standards and Technology governing measurement technology and standards, a department under the U.S. Commerce Office.

Recall System - The periodic calibration tracking system for measuring and test equipment used at C.A.P.C.

4.0 Responsibility: It is the responsibility of the President to insure compliance to this procedure.

5.0 Procedure:

- **5.1 Frequency Control:** The frequency of inspection is based on the purpose, degree of usage, equipment type, and stability. Normally, initial frequency is determined from the performance of similar equipment or by the manufacturer's specifications. This is determined from histories, commercial and military guidelines, usage, and environment. Gages such as thread gages, gage blocks, surface plates and master gages are usually 1 year. Gages with movable components are usually six-month recall. These frequencies are only a guide and can be adjusted as needed.
- **5.2 Calibration Due Date:** After the frequency has been established, a specific calibration on 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 (i.e., string tag on equipment or label affixed to container, or notation on calibration record). All equipment is re-calibrated by that date. The calibration supplier will notify C.A.P.C. prior to the calibration date. All equipment due for calibration will be gathered and submitted for calibration.
- **5.3 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 President authorizes these extensions and 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 or an instrument discrepancy report is prepared. The extension period may be for the normal calibration interval or for shorter periods of time. All extensions are entered in the measure history database.
- **5.3.1. Lengthening Intervals:** Frequency intervals may be lengthened on instruments that have exhibited no out-of-tolerance conditions in 5 consecutive evaluations or as might be expected on plug or pin type gauges with minimum use. The **President** approves interval adjustments.
- **5.3.2 Shortening Intervals:** Intervals are shortened when an out-of-tolerance condition has occurred in 2 out of 5 evaluations. Out of service conditions do not count in this calculation on (Blown fuse, broken meter, etc.).
- 5.4 NIST Traceability: All calibration at C.A.P.C. will be traceable to the National Institute of Standards and Technology, or equivalent.
- **5.5 Calibration System: Inspection and Maintenance Procedures:** Each type of equipment subject to Calibration at C.A.P.C. has an inspection and/or Calibration procedure written which establishes the method of inspection and/or Calibration on for that type of equipment. This information is derived from sources such as instruction books, drawings or tool release and change notices. The instructions derived from manufacturer's specifications need not be rewritten but may be referenced in the equipment database. The President approves inspection procedures
- **5.5.1 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.
- **5.5.2 Handling of Rejected Equipment:** When, during normal calibration, controlled equipment is found to be out of tolerance or defective, Quality Management is notified. It is the responsibility of President to determine the impact on products tested with the defective equipment since the previous
- **5.5.3 Initial Inspection:** All new test equipment is routed to the Quality Department prior to use for product acceptance. At this time the equipment is evaluated and, as required by this document, be given a control number, inspection and/or maintenance schedule and a calibration label.
- **5.5.4 Personal Equipment:** If personal equipment is used to determine acceptability or quality records, it is controlled according to this procedure.
- 5.5.5 Government Use of Equipment: The government has access to all equipment for their use in acceptance of products at the C.A.P.C. facility.
- **5.6 Equipment Recall Database:** This database maintains a record of the items that are to be controlled by this procedure. The database is accessed monthly by QA to identify the equipment due for calibration. QA then retrieves the equipment for calibration.

Procedures Manual

Title: Control of Monitoring and Measuring Equipment

Procedure Number: 7.6

Page: 2 of 3

- **5.7 Product Recall:** When a measuring device is found to be out of calibration, an evaluation by the President will take place to determine whether the result may be nonconforming product. If so, the product is recalled by issuing a letter with all the pertinent information and arraignments made to reinspect the product.
- **5.8 Calibration Techniques:** C.A.P.C. will use in-house calibration procedures to calibrate each measuring device. The procedure will be based on manufacturer's specification, and will include visual, dimensional and operational inspection.
- **5.9 Calibration Label:** 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.
- **5.9.1Calibration Seals:** Calibration adjustments, accessible from the outside of the equipment (other than zero/standardize) and access to internal adjustments are made tamper proof. This is accomplished by using glyptol, wax, or tamper labels as required. Breaking of these seals voids the calibration.
- **5.10 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.
- 5.11 Control Records Maintained:
- **5.11.1 Measure History Database:** The history database is maintained by recording the transactions of the equipment listed in the equipment database.
- **5.11.2 Calibration on Data Sheet:** During the calibration of certain pieces of equipment, a calibration data sheet may be filled out if required. The intended purpose of this data sheet is to establish the necessary corrections to be used when using this equipment. The calibration data sheets may be placed with the equipment to which it pertains.
- 5.12 Environmental Controls: All calibration at C.A.P.C. will be in the ambient condition of the location where the item will be used.
- **5.13 Transportation and Handling:** Equipment is protected from temperature, mechanical or other stresses that may cause damage. Protection to each piece may be unique but should consider temperature extremes (shock), vibration, handling shock, moisture or other harmful environments.
- **5.13.1 Equipment Storage and Issue:** Adequate storage facilities are established for equipment to prevent loss and inadvertent damage due to temperature, humidity, vibration, shock and handling. Equipment is stored and logged in and out by its control number. Equipment is appropriately protected during transport and handling.
- **5.14 Contracted Calibration and/or Measurements:** 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:
- **5.14.1 Identification** of the equipment to which the certificate pertains
- 5.14.2 Measurement values of the equipment
- **5.14.3 Proof of traceability to NIST** for the accuracy of equipment used in the calibration.
- 5.14.4 Date of calibration
- **5.14.5 Qualification of Outside Sources:** It is the responsibility of the C.A.P.C. Quality Department to assure that suppliers performing this service are qualified to perform the requirements of or ANSI/NCSL Z540-1-1999 or ISO 10012-1.
- **5.14.6 Subcontractors Equipment:** Subcontractors equipment must meet the requirements of this procedure. Requirements of section 7.6 will be reviewed during the C.A.P.C. quality review of suppliers.
- **5.15 Software Control:** As applicable C.A.P.C. will store all electronic data masters in either the Mfg office, or QA office. An electronic backup will be made at least monthly. Copies of the master or original data will be stored in a fireproof safe or offsite. All characteristics will be verified by QA during the inspection of parts. Any change to the electronic data will be verified by QA during part inspection along with related characteristics.
- **5.16 Significantly Out of Tolerance**: Shall be defined as any measuring tool found to be out of tolerance by twice the manufacturer's suggested tolerance. All measuring equipment is identified with a calibration label that will note the asset number and the current calibration status. When an C.A.P.C. part is inspected, the inspection report shall note the tool asset number. This will allow the tracking of measuring tool use, and for the analysis of the parts measured if an inspection tool is found to be significantly out of Tolerance. All parts measured with that tool can be identified that were measured by that tool since the tool's last known in-tolerance condition (the last calibration date). All products in stock or work in process will be bonded and identified with a rejection tag until inspection can be performed to verify acceptability.

Procedures Manual

Title: Control of Monitoring and Measuring Equipment

Procedure Number: 7.6

Page: 3 of 3

Product not acceptable will be controlled per procedure 8.3. Acceptable product will be released to the next scheduled operation. Product delivered to the customer will require control and notification per procedure 8.3.

6.0 Records: All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| А | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Statistical Techniques **Procedure Number**: 8.1

Page: 1 of 2

1.0 Purpose: This procedure establishes the method and conditions were C.A.P.C. will apply Statistical Techniques when required by customer contract or as determined by company management. When instructions referenced on the Purchase Order, Engineering Drawing and/or related product definition documents require a different sampling requirement other than permitted by this specification, the requirements of the referenced Instruction shall take precedence. However, in all cases, the sampling plan must have a zero acceptance number. All noted AQL are guidelines and not mandates.

2.0 Scope: Statistical Process Control is used in areas that assist in the control and improvement of processes as required by the customer.

3.0 Definition: Acceptable Quality Level (AQL): The maximum percent defective for a process that a consumer would consider to be acceptable as a process average. Usually the fraction defective at which the probability of accepting a lot is 95%. The AQL specifies the required sample size and an acceptance number of zero is required for samples selected from the lot.

Characteristic: A property that helps to differentiate between items of a given sample or population. The differentiation may be either quantitative (by variables) or qualitative (by attributes).

Continuous Process: A homogeneous process in which the product flows into the inspection station in essentially the order of manufacture and accumulation of identifiable lots may be impossible.

Critical Characteristic: A characteristic that if nonconforming could cause an unsafe condition in the end product. 100% inspection is required unless otherwise specified by customer contract or documented 100% process control.

Defects Per Million (DPM): A metric that equals total characteristics nonconforming divided by total characteristics inspected times a million.

Formation: The procedure of collecting, segregating or delineating production units into homogenous identifiable groups according to type, grade, class, size, composition or condition of manufacture.

Homogeneous Lot: A group of parts manufactured at approximately the same time that are expected to share similar quality levels for selected characteristics. These parts should come from one production run.

Inspection by Attributes: Inspection whereby either the product or product characteristics are classified as conforming or nonconforming or the number of nonconformances in the unit of product is counted, with respect to a given measurement.

Inspection by Variables: Inspection wherein certain quality characteristics of samples are evaluated with respect to a continuous scale and expressed as precise points along this scale. Variable inspection records the degree of conformance or nonconformance of the unit to specified requirements.

Level Zero: Applies to Continuous Sampling Plan tables only and is the initial level required before sampling inspection may begin.

Lot or Batch: A collection of units of product bearing identification and treated as a unique entity from which a sample is to be drawn and inspected to determine conformance with the acceptability criteria.

Major Characteristic: A characteristic that if nonconforming could jeopardize the usability, proper assembly or manufacturability of the unit of product. If not within the prescribed acceptance limits, it is most likely to result in functional problems which can impair performance, where unsafe conditions for persons are unlikely. Major Characteristics will be sampled as determined by the Customer and/or the President until C.A.P.C. can prove process control. The sampling plan to maintain process control will then be determined by C.A.P.C. management unless otherwise required by the customer.

Minor Characteristic: Comprise all characteristics not designated as critical or major. Minor characteristics are important for general product quality, but if nonconforming, are unlikely to result in significant impairment of performance. Minor Characteristics will be sampled as determined by the Customer and/or President until C.A.P.C. can prove process control. The sampling plan to maintain process control will then be determined by C.A.P.C. management unless otherwise required by the customer.

Part: Any item, detail or assembly, etc., which is defined by an engineering drawing or specification

Process: The combination of people, material, machines, tools, environment, measuring & test equipment, and work instructions necessary to produce a product or service.

Sample: One or more units of product drawn from a lot or batch. The units of the sample shall be selected at random, without regard to their quality.

Sampling Plan: A statement of the sample size or sizes to be used and the associated acceptance and rejection criteria.

SPC Characteristics: A characteristic generally selected for in-process data collection and control using SPC tools.

Special Process: Certain processes that may affect the structural or functional integrity of parts or assemblies and where the results of these processes may not be fully verified by subsequent inspection are designated as special processes. When specified on the drawing or Purchase Order, only sources approved by the customer to perform these special processes may be used. Use of approved sources does not relieve the company or subcontractor performing the special process of the responsibility for ensuring conformance to requirements. Examples include: surface treatment (black oxide, phosphate, anodizing,), plating (cadmium, chromium, nickel, etc.), shot peening, plasma spray, bonding, titanium processing, heat treating and/or welding.

Procedures Manual

Title: Statistical Techniques **Procedure Number:** 8.1

Page: 2 of 2

Statistical Process Control (SPC): The condition describing a process in which variation is controlled and monitored using the appropriate control charts.

- **4.0 Responsibility:** The President is responsible for the implementation of this procedure.
- **5.0 Procedure:** C.A.P.C. will apply Statistical Techniques per customer purchase order and per their requirements or the flowed down requirement of their customer C.A.P.C. will perform SPC as necessary. Sampling will not be used for product acceptability at C.A.P.C., unless directed to do so by customer requirement. Sampling will be applied in accordance with customer's documented needs or requirements. Sampling and/or statistical methods will be performed in accordance with customer contract requirements where applicable. When using sampling plans:
- 1. Inspection personnel must be trained in the application of sampling methods.
- 2. All plans must have a "zero acceptances" number. The lot shall be rejected if a nonconformance is discovered in the sample. If a nonconformance is found in the sample, inspect all pieces in the lot for the nonconformance that had been noted and remove all nonconforming pieces from the lot.
- 3. Sample must be randomly selected and representative of the population.
- 4. No additions or exchanges may be made to the original sample.
- 5. The lot must be homogeneous and produced under essentially the same conditions and at the same time. If not, the items shall be segregated and treated as a separate lot.
- 6. Critical characteristics as defined herein must be inspected 100%, unless otherwise specified by customer contract or documented 100% proven process control.
- 7. Sampling inspection as defined herein is for detail or final product acceptance.
- 8. For lots known to contain nonconformances during the production process, the nonconforming pieces shall be segregated.
- 9. The characteristics known to be nonconforming shall be inspected 100%. The remaining characteristics shall be inspected per the appropriate sampling plan for that characteristic.
- 10. Unless otherwise specified by customer contract or documented 100% proven process control the following AQL may be used as guidelines.
- 11. Critical Characteristics defined by the customer or C.A.P.C. require 100% inspection, customer mandated inspection plan or until C.A.P.C. can prove process control through sampling as determined by C.A.P.C. management, tooling, or other accepted inspection methods. The sampling plan to maintain process control will then be determined by C.A.P.C. management unless otherwise required by the customer.
- 12. Major characteristics defined by the customer or C.A.P.C. may require a customer mandated inspection plan or until C.A.P.C. can prove process control as noted above.
- 13. Minor characteristics defined by the customer or C.A.P.C. may require a customer mandated inspection plan or until C.A.P.C. can prove process control as noted above.
- **5.1 Visual Requirements:** Visual inspection shall be performed after all manufacturing operations have been completed and must be performed on all parts in the lot.
- **5.2** Key Characteristics will be applied per customer purchase order requirements. Key Characteristics will be applied by part number per job or lot as required by the customer. Key characteristics will be identified on a "Control Plan" form The control plan will note the key characteristic dimension, the tolerance, the operation where the key characteristic is machined, the required CPK, the sample rate, the equipment used for inspection, the process control settings, and any design of experiment or prior noteworthy data needed for process control evaluation. All key characteristic data will be filed by part number for process capability and quality history.
- **5.3 Statistical Techniques uses at C.A.P.C..** The following are possible uses for Statistical Techniques: Process control, reliability, maintainability, safety, selection and inspection of key characteristics, process capability measurements, statistical process control, design of experiment, inspection, failure mode, effect and criticality analysis, PPAP, Gage Study, PAS Verification Data, PEAR Data, etc. **6.0 Records:** All records will be maintained in accordance to procedure 4.2.4: Key Characteristic Data, SPC Charts, and Control Plans as applicable.

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| А | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |

Procedures Manual

Title: Internal Quality Audit **Procedure Number:** 8.2.2

Page: 1 of 2

- **1.0 Purpose:** The purpose of this procedure is to establish an audit function that evaluates the effectiveness of C.A.P.C.'s quality system. This includes, but is not limited to, the quality system, manufacturing control, quality control and workmanship of C.A.P.C. products. The audit program shall be planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The selection of auditors and conduct of audits shall ensure objectivity and impartiality of the audit process. Auditors shall not audit their own work.
- **2.0 Scope:** Internal audits shall be performed to the planned arrangements once per each calendar year, to the requirements of this International Standard and to the quality management system requirements established by C.A.P.C., and customer contractual requirements.
- 3.0 Definition: Audit Check Sheet: A detailed audit plan used to determine compliance to a procedure or specification.

Corrective Action: The correction or response, including a verification plan/date and effectivity plan/date, implemented to preclude or prevent a recurrence of a nonconformance.

Internal Audit: An C.A.P.C. internal self-assessment of specific quality system implementation to the documented quality system requirements.

Qualified Auditor: An auditor, who has a quality background and has the competence to conduct an audit.

Preventive Action: The use of historical data and problem solving tools to eliminate potential causes of a nonconformance.

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

Verification/Follow-up: Confirmation, through the provision of objective evidence that specified requirements have been fulfilled.

- **4.0 Responsibility:** The President will insure the compliance to this procedure.
- 5.0 Procedure: The audit may include Process Audits. Complete QMS audits, and/or customer contractual requirements.
- **5.1 Audit Schedule:** Each procedure/and or key processes are audited a minimum of once every calendar year. An audit schedule shall be developed and serve as a guide to management in scheduling audits. Audit schedules are to be used as a guide and dates may vary depending on company priorities and circumstances. When procedures, process, elements, or personnel are not meeting requirements, the auditor will note the deficiency and corrections will become the responsibility of the Department management or the Quality Manager. A re-audit of the function after corrections have been completed shall be performed. Re-audits are scheduled on an as-needed basis and documented on the original audit document or a new audit documents. 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.
- **5.2 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
- **5.3 Training of Auditors:** Auditing personnel (other than experienced personnel in a particular activity being audited) have, or will be given appropriate training or orientation to develop their competence for performing required audits
- **5.4 Personnel Records:** Records are maintained by Quality Management for all personnel actively performing audits. These records list their qualifications and training.
- **5.5 Responsibility:** The President is responsible to assure performance of quality audits. The system or manufacturing control audit is conducted by a qualified auditor. Quality system audits performed by outside sources (Customer, Government agencies) may not serve as a substitute for C.A.P.C. internal quality audits. However, such audits and reporting is conveyed to C.A.P.C. management to assist in review of the Quality program.
- **5.6 Audit Review:** Reviews are held to communicate effectiveness of the Quality Program and to identify areas of needed improvement. The Quality Audits will be submitted to management for review for Preventive action.
- **5.7 Audit Findings:** Internal Audit findings will be classified as **Major Finding**: The absence of, or total breakdown of an applicable management element specified in the standard, customer requirement, or any non-conformity where the effect is judged to be detrimental to the integrity of the product or service. **Minor Finding:** A single system failure or lapse in conformance with a procedure relating to the standard or customer requirement. **Note:** A number of minor non-conformities against one requirement can represent a total breakdown of the system and this can be considered as a major non-conformity. **Observations:** Quality system documents, processes, or practices noted by the auditor or management that are new requirements and need to be fully implemented, may be upgraded to improve efficiency, are "Opportunity for Improvement", or may enhance current documents, processes, or practices that are currently acceptable. When a deficiency is noted, actions are taken to eliminate detected nonconformities and their causes. The action will be taken by the management of the Department responsible, Quality Management, or as a team effort. All Major deficiencies require formal corrective action. Minor findings corrected may not need formal corrective actions as long as actions are taken to eliminate detected nonconformities and their causes and the corrections are documented. When C/A's are formalized, they will be in accordance to procedure 8.5.2. "Observations" and "Opportunity for Improvements" do not need formal corrective action responses.

Procedures Manual

Title: Internal Quality Audit **Procedure Number:** 8.2.2

Page: 2 of 2

- **5.8 Corrective action follow-up:** When corrective action is required, after completion, follow-up audits will be initiated, and documented for effectiveness.
- **5.9 Detailed Checksheets and other Applicable formats:** Detail internal checksheets will be developed for the applicable quality processes and specification required procedures as a minimum. The detailed check sheet will incorporate all the requirements of the procedure. The detail checksheets will be developed by QA or the controlling Department. All detail checksheets will be revision controlled per section 4.2.4, and the masters will be maintained in the QA office. In addition to the detailed checklists, customer referenced or based audit plans, industry based referenced material, flow charts, process maps, or quality documents may be used individually or in any combination to determine whether the quality management system conforms to the planned arrangements, to the requirements of the referenced Standard and to the quality management system requirements established by the organization, and is effectively implemented and maintained.

6.0 Records: All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| А | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Inspection

Procedure Number: 8.2.4

Page: 1 of 3

1.0 Purpose: To establish a procedure for the control of inspection at C.A.P.C.

2.0 Scope: This procedure applies to all parts that are inspected at C.A.P.C. All inspection for product acceptance will be 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.

3.0 Definition: First Piece Inspection: A verification that the first or set-up part is acceptable to required parameters (per work instruction requirements) prior to continuation of the process.

First Article: The inspection/verification of applicable drawing/specification requirements for a specific part number, assembly or component...

First Article Inspection Report (FAIR): The documented result of a First Article.

Inspection Report (IR): The documented result of progressive inspection(s).

- **4.0 Responsibility:** The President will be responsible for all requirements of inspection of this procedure. Inspection functions can be delegated to other Departments with trained personnel who will act as Quality Department inspector for determining product acceptance..
- **5.0 Receiving Inspection:** The Receiving Department will verify that all products received meet the requirements of C.A.P.C. and or customer purchase order document.
- **5.0.1 The Receiving Inspection Department** will inspect the product to make certain that all the applicable characteristics are acceptable. Receiving inspection will verify compliance to documented blue prints, specifications or other purchase order required documents. Receiving inspection acceptance will be documented for the received product on the traveler and or receiving log. The accepted parts will be moved to the next scheduled operation. Non-acceptable parts will be segregated and controlled per paragraph 5.2. Supplies used for facility, stationary, or maintenance are excluded.
- **5.0.2 Inspection Documentation:** Quality plans or work instructions shall 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.
- **5.0.3 Discrepancy:** In the event that there is an error or discrepancy, a rejection document will be written, the supplier will be notified and the material will be segregated until the corrections are made, or the parts returned to the supplier. Notification will be made by the purchasing Department by submitting a copy of the rejection document to the supplier.
- **5.0.4 Acceptance by Certification:** shall be accomplished by assuring that the data in the reports are acceptable per applicable specifications based on comparing the material certification against the actual specification, or by reviewing the customer design data and ensuring that C.A.P.C. ordered the correct material and the supplier supplied the correct material by verifying the supplier C. of C. or receiving document.
- **5.0.5 Inspection hold/ release for positive recall:** Where incoming product is released for urgent production purposes prior to verification, it shall be positively identified and recorded in order to permit immediate recall and replacement in the event of nonconformity to specified requirements. The Inspection and/or Manufacturing Department will separate and or hold product until the required inspection or test are completed or certifications received and verified. Products may be released under positive recall by noting the operation/test and quantity on the work instructions to allow for further processing per customer requirement. The Work Order will note serial numbers, lot numbers, supplier/customer, operation the parts were released to for further processing, and all traceability information etc. to allow for tracking product and to permit immediate recall if necessary. The nature of the customer authorization for release of the product will be documented and maintained as a permanent record in the part number file. All release for processing that by passes any inspection must be authorized in conjunction with the customer by the companies Quality Manger. When product has been released and positive recall data noted, the missed inspection/test task will be verified as acceptable at final inspection prior to shipment to the customer.
- **5.1 Procedure:** First Piece; The Quality inspector, Setup-man or a person designated by the President and with the approval of the Quality Department will inspect the first production part for all the applicable design characteristics that are being machined for that process. The inspection will be documented on the traveler. When required by contract a first article will be documented on a "First Article inspection" form and may be submitted by C.A.P.C. 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 manufacturer for that process. If the first article is not acceptable, the part is returned to the manufacturing Department with the noted discrepancy being conveyed to manufacturing for correction. If the part cannot be reworked to blue print specification, it will be documented as required to ensure control. It may be documented on a rejection report, tag, work instruction, inspection report, or set-up sheet if it is to be used as Set-up, sample or inspection part. The set-up, sample or inspection part will be controlled and scrapped or identified to prevent its use at the end of the production run for that part number. The corrected part will be returned to inspection for verification of all design characteristics. If the part is acceptable, the part will be returned to manufacturer for continuation of the process. If the part is not acceptable it will follow the process as described above for parts that are not acceptable upon first article inspection.

Procedures Manual

Title: Inspection

Procedure Number: 8.2.4

Page: 2 of 3

- **5.1.1Completed 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 will be unacceptable. Completed Part First Article requirements are controlled by customer contract or industry standards only when documented in writing.
- **5.1.2 FAI Non-conformances:** When any characteristic of a first article inspection is non-conforming, the inspector will reject the part being inspected. The FAI will be documented and corrections must be made and re-inspected. The rejected part and a copy of the inspection report showing the non-conformance will be returned to the manufacturing foreman for corrections. If further non-conformances are noted, the inspection report will note the non-conformances, and the rejected part and a copy of the inspection report showing the non-conformance will be returned to the manufacturing foreman for corrections. If the part is acceptable and all non-conformances are resolved, the first article will be documented, the parts returned to the manufacturing foreman with the approval to continue. All nonconformances' that cannot be resolved, or repeat nonconformances are to be controlled and corrective action may be required per procedure 8.52
- **5.1.3 Inspection Report Completion:** When required by contract the customer designated first article inspection reports will be used. If AS9102 (latest revision) is noted, the AS9102 applicable inspection report will be completed per the guidelines of AS9102. If a customer special inspection report is used, the instructions for its completion will be issued with the inspection report. For internal C.A.P.C. inspection reports, the instructions for the inspection report will be used as the guideline for completion. Inspection report instructions are maintained by the President and are to be used for report completion. Training on instructions for inspection report completion will be documented. FAI reports as a minimum will list the equipment and/or tools used, actual data, nominals, tolerance, inspector, all design requirements applicable, and other customer or company required information.
- **5.1.4 Initiating Partial or Re-accomplishment of First Article Inspection:** The FAI requirement, once invoked, shall 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 shall complete 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, C.A.P.C. shall identify the approved configuration in the index of part numbers on the inspection report. C.A.P.C. shall perform a full FAI, or a partial FAI for affected characteristics, when any of the following events occurs:
- 1. A change in the design affecting fit, form or function of the part.
- 2. 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.
- 3. A change in numerical control program or translation to another media that can potentially affect fit, form or function.
- 4. A natural or man-made event, which may adversely affect the manufacturing process.
- 5. A lapse in production for two years or as specified by the Customer.
- **5.1.5 Nonconformance Handling:** The FAI may not be closed with a non-conformances dimension as long as it is noted as nonconforming or conforming with customer approval. C.A.P.C. shall re-perform an FAI for those affected characteristics and shall record the results when required by the customer or C.A.P.C. management.
- **5.2 Assemblies and Subassemblies:** When Assemblies and/or their sub-assemblies are manufactured their individual components 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 (certification, C. of C., approved data, 8130-3, manufactures acceptance, and/or customer acceptance data). The assembly or sub-assembly first article documentation will include the first article or acceptance data for each component in the quality records file for that assembly or sub-assembly part number. 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.
- **5.3 In-Process Inspection:** The Inspection and/or Manufacturing Department will inspect all parts at C.A.P.C. to the current blue print or work instructions for the operations performed in the order of completion per C.A.P.C. and customer requirements. The inspections are accomplished prior to further processing. The operator will sign or stamp the Work Order to show operation completion and acceptance by manufacturing. Inspection will verify the acceptability of the product at that operation by means of an acceptance stamp, quantity and date notation on the Work Order. All nonconformance will be documented and controlled as noted in paragraph 5.1.2
- **5.4 Sampling:** C.A.P.C. will sample per customer documented sample plan/and or customer approved sample plan to assure part compliance to engineering specifications. In-process inspection and or sampling will be accomplished per work instructions.

Procedures Manual

Title: Inspection

Procedure Number: 8.2.4

Page: 3 of 3

5.5 Inspection hold: The Inspection and/or Manufacturing Department will separate and or hold product until the required inspection or test are completed or certifications received and verified. Products may be released under positive recall by noting the operation/test and quantity on the adjustment/comment area to allow for processing. This section will note serial numbers, lot numbers etc. to allow for tracking product and to permit immediate recall if necessary.

5.6 FINAL INSPECTION:

- **5.6.1 Inspection;** The Inspection and /or Manufacturing Department will inspect all parts at C.A.P.C. to the current blue print or work instructions for assurance that they meet the requirements of C.A.P.C. and the customer. The inspection Department will verify that all manufacturing planning has been completed and accepted to the latest requirement. Inspection buyoff of the C. of C. and C.A.P.C. shipping document will be accepted as proof of final inspection. Final inspection will visually inspect all parts prior to acceptance for final customer submittal.
- **5.6.2 Document Review:** Final Inspection will review all documents to insure 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 will be handled as rejections and will be processed per the non-conforming material procedure 8.3.
- **6.0 Records** Inspection and test records shall show actual inspection and test result data when required by specification or acceptance plan. In addition, all traceability information, such as serial number, part number, lot number, configuration data, etc., must be noted. This includes computer, CMM, or electronic generated Forms. Where required to demonstrate product qualification C.A.P.C. shall ensure that quality records provide evidence that the product meets the defined requirements. All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| А | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Control of Nonconforming Product

Procedure Number: 8.3

Page: 1 of 3

1.0 Purpose: This procedure establishes the method of review, control and corrective action of nonconforming material, to ensure that product which does not conform is identified and controlled to prevent unintended use or delivery.

2.0 Scope: This procedure applies to materials or product nonconformance that occurs at any stage of the company's processes, including subcontractor supplied materials and product. It also applies to nonconforming product returned from customers.

3.0 Definition: Bond Room: The segregated secured area where nonconforming material may be held pending disposition from C.A.P.C. or a customer.

Material Review - The formal disposition of nonconforming material by authorized personnel.

Nonconformance - A condition that does not meet the drawing or specification requirement.

Nonconformance Report - The formal detailed documentation and disposition of nonconforming product/material.

In addition See 5.1 c.

- **4.0 Responsibility:** It is the responsibility of the President to insure compliance to this procedure. C.A.P.C. has defined the responsibility for review and authority for the disposition of nonconforming product under the authority of C.A.P.C. to be the President, or his designee. This element shall define the responsibility and authority for the review and disposition of nonconforming product, and the process for approving personnel making these decisions. Individuals are assigned to the disposition process based on Knowledge, Experience and Competency. The allowable dispositions shall be rework to Blue print specification, scrap, submit to the customer for disposition, return to vendor, or for product under the contracted authority of the customer design data, only the customer may disposition non-conforming product. The allowable dispositions are defined in para; 5.2 b.
- **5.0 Procedure Overview:** All nonconforming product that is detected through inspection or testing, or by supervisors and employees during the routine monitoring of any process, is immediately separated from that process and clearly identified as nonconforming. Product must be quarantined or effectively labeled or tagged as appropriate. All nonconformance events are reported, investigated and the nonconforming product disposed of in a manner that satisfies the customer, sub-contractor, company quality policy and any outside authority, by taking actions necessary to contain the effect of the nonconformity on other processes or products. The goal of investigating any nonconforming event is to identify causative factors for the purpose of remedial action that reduces or eliminates any future reoccurrence of the quality failure. Investigations should not be punitive or take any other approach that may negatively affect employee commitment to the quality system

5.1 Procedure - Nonconformance Control:

- a) Detection: Nonconforming product is the result of failure in the quality system. Effective detection of these system failures is essential to the integrity of the system. The detection of minor failures is a critical safeguard of the quality system. Without correction, minor failures may quickly escalate into serious and expensive quality difficulties for the company. Methods for identifying nonconformance include:
- 1. Inspection, testing and routine supervision throughout the process
- 2. Identification of incoming nonconforming materials and product
- 3. Frequent and motivated in-process checks by line supervision
- 4. Competent final checks of process output before release or delivery
- 5. Product returns and customer complaints
- 6. Nonconformance notification by outside inspectors or testing authorities
- 7. Routine employee input
- b) Reporting: All detected nonconformances, or situations where a problem may arise if not corrected, are reported, usually on a Nonconformance Report (NCR), inspection report, or a rejection tag. The NCR or Rejection Tag Initiator may be the employee responsible for detecting the nonconformance. This reporting responsibility may be shared with management or inspection personnel if the reporting employee is unwilling or unable to initiate the NCR or Rejection Tag. An NCR or Rejection Tag may not be required for minor nonconformance events that are easily corrected and that do not impact adversely on product quality. However, if a minor event has the potential to cause serious quality problems if it reoccurred under different operating conditions, then a discretionary NCR or Rejection Tag is required.
- c) Nonconformance Categories: Nonconformance events are broadly divided into: Major Nonconformances: Events that are not routine and cannot be easily corrected or repaired. This includes any nonconformances, flaws, or other quality failures, that have a significant impact, or the potential for significant impact, on the company's ability to meet its obligations to its customers and/or financial loss. Minor Nonconformances: Events that result in nonconforming product or flaws that are minor and easily corrected within the process. NOTE: Minor events are not necessarily judged solely by results. If the potential for a serious quality problem exists, then a minor nonconformance event should be considered major and reported by NCR or Rejection Tag.
- d) Nonconformance (NCR) Reports and/or Rejection Tags are controlled documents and administered by the Quality Manager. All new NCR or Rejection Tags are submitted to the President for numbering and distribution. NCR or Rejection Tags are then sent to the Department head responsible for the area(s) where the nonconforming event was identified. Each NCR or Rejection Tag is an interactive document and circulated for comments and review by any function involved, or potentially involved, in correcting or monitoring the nonconformance.

Procedures Manual

Title: Control of Nonconforming Product

Procedure Number: 8.3

Page: 2 of 3

- e) Minor Nonconformance Reporting: Minor nonconformances are reported as required on routine documentation for the process activity including inspection reports or Work Orders. A NCR or Rejection Tag is not required unless required by customer contract on customer design product, has product or process impact exceeding \$250.00 as determined by C.A.P.C. Management, or if the correction resources is less than the resources needed to document the minor non-conformance.
- f) Quarantine: Nonconforming product is immediately labeled, tagged or otherwise clearly identified and, where possible, separated from other product in a special handling area) Where product is already in process and separation is impractical or unsafe, the President takes any and all steps necessary to ensure NCP is not further processed and is identified and traceable.

5.2 NCR or Rejection Tag Review and Action

- a) Review Responsibility: All NCR or Rejection Tags are reviewed by the President or his designee, and investigated by the appropriate Department Manager(s) or delegated on a timely basis, usually within seven working days. The nonconformance is investigated, and the results of that investigation included on the NCR or Rejection Tag. Interdepartmental input and, if necessary, outside advice, is obtained. Investigating personnel considers all possible causes and associated design, function, employee and product safety, product liability, regulatory and environmental factors as applicable.
- b) Action Options: The NCR or Rejection Tag review process is not complete until a plan for the disposal of the nonconforming product, and/or remedial action to prevent a reoccurrence, is decided and approved by the President as required per customer contract authorization. The options are:

Rework the product to conform to specifications.

Accept product in its nonconforming condition (customer design-customer authorized only).

Return to supplier.

Reject and/or scrap (Product dispositioned for scrap shall be conspicuously and permanently marked, or positively controlled, until physically rendered unusable.) C.A.P.C. does not regrade product.

- c) Quarantined Product: Product may be held in quarantine for any reasonable period pending final disposal. All NCR or Rejection Tag's must identify the disposal method and the authority approving the disposal. It is not permitted to hold nonconforming product beyond any reasonable time necessary to review any NCR or Rejection Tag and decide on its disposal method unless that product is effectively quarantined.
- d) Outside Obligations: If the planned method of disposal violates, or may violate, any company obligation under contract to a customer, or to any regulatory authority, then prior approval or contract variance is obtained.
- e) Determining If Additional Nonconforming Product Exists Based On The Causes Of The Nonconformities and taking further action when required: Nonconformities of product and processes will be reviewed by the President or his designee(s) and part/process Quality History, Parts in Stock, Parts WIP will be reviewed to determine the extent of the nonconformity and to identify and control the nonconforming parts. As required Customer notification, part re-inspection, and dispositioning as allowed by customer contract will be implemented and documented.

Product Rework and Repairs: All nonconforming product and equipment that is disposed of by reworking or repairing is re-inspected and retested for compliance with original requirements or the new requirements of any other action options.

- f) Corrective Action: Where any identified major nonconforming event requires specific corrective action, then such actions should proceed in accordance with Procedure 8.5.2, Corrective Action.
- g) NCR Status Log and Review: The President is responsible for effectively logging all NCR or Rejection Tag's and for monitoring status and disposal. The status log is reviewed at a predetermined frequency (weekly) when applicable to identify specific trends of nonconforming product by Department, function or process. The purpose of this review is to establish the need for training, improvements, or new procedures that may be necessary to correct repeated or potentially serious nonconforming events.
- h) After Delivery: When nonconforming product is detected after delivery or use has started, the company must take action appropriate to the effects or potential effects of the nonconformity.
- **5.3 Procedure Final Review:** The President closes the NCR or Rejection Tag 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 or Rejection Tag is initiated in accordance with the procedures contained above. The President is responsible for the verification of all approved disposal actions. This review includes an overview of disposal goals, methods, timing, and ongoing remedial actions.
- **5.4 Notification Required:** C.A.P.C. notifies customers in detail in a timely manner, usually within 24 hours or per customers requirement when a nonreworkable nonconformity is discovered at C.A.P.C., or in products that may affect product already delivered. The notification on will include concise description of discrepancy, parts and serial numbers affected, lot number, delivered quantity, delivery dates and a statement of corrective action for the noted discrepancy.

Procedures Manual

Title: Control of Nonconforming Product

Procedure Number: 8.3

Page: 3 of 3

- **5.5 Customer MRB Authority:** If customer MRB authority is granted, C.A.P.C. will obtain written MRB plan approval. The C.A.P.C. MRB plan will list members, restrictions authorized personnel who disposition nonconforming material, and records list required. C.A.P.C. will provide written rational for all use-as-is dispositions that are not accompanied by a specification on or design change authorized by the customer.
- 5.6 Control And Customer Notification Of Suspect Product: Every inspection job will require a confirmation by the inspector that the equipment being used is within the calibration cycle. When equipment is found to be out of calibration, all jobs that were measured with that equipment will be remeaseured (if the parts are still in-house). If the parts have been shipped, a notification letter will be sent to the customer that will identify the suspect part number, the reason for the concern, and for the customer to decide if the suspect parts will be sent back for remeasuring with equipment that is in calibration, or if the parts are to be remeasured at the customers facility using customer or company equipment. If equipment is within calibration, but in the opinion of management the equipment displays performance that may have created inaccurate data, the above noted notification letter will be sent for parts shipped, and parts in-house will be remeasured. When data is suspect of being incorrect for any reason the part will be remeasured in house, or submit to the customer a notification letter as noted above.
- **5.6.1 Remeasurement of Parts:** The suspect parts will be remeasured to the same criteria as if no initial measurement had been performed, when the parts are in-house. For parts already shipped the customer will decide if the parts are to be returned for complete remeasurement, or if inspection at their facility will be performed. When data is suspect of having inaccuracies, the data will be reviewed for disposition. The disposition may include correction of clerical errors, or re-inspection in part or whole.
- **5.6.2 Suspect Part Traceability:** All products are tracked daily for inspection status. All jobs will be reviewed to derive the first completed job that was inspected with the suspect equipment under suspect conditions. All jobs from that point will be considered suspect, and will be remeasured if inhouse, or the customer will be notified.
- **5.6.3 Corrective Action:** All suspect equipment or data will be reviewed by the President for the application of corrective and preventive action per the Corrective Action Procedure.

6.0 Records: All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| Α | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Corrective Action **Procedure Number:** 8.5.2

Page: 1 of 3

1.0 Purpose: This procedure establishes the guidelines for requesting and implementing corrections of matters that affect the C.A.P.C. product, customers and/or suppliers. Each individual within C.A.P.C. is responsible to request or take corrective action when a condition exists that is detrimental to customer relations or product performance. Corrective action will be implemented to the degree necessary to eliminate nonconformances. Customer contractual requirements for corrective action will be flowed down as required to C.A.P.C. and suppliers. **2.0 Scope:** Applies to all Departments that require corrective action.

3.0 Definition: Corrective Action: Action to eliminate the cause of a detected nonconformity or other undesirable situation.

Individual Corrective Action: Corrective action relative to a specific Nonconformance Report number, documented on a Nonconformance Report.

Material Review: The formal disposition of nonconforming material by authorized personnel.

Nonconformance: A condition that does not meet the work instruction, drawing or specification requirement.

Nonconformance Report: The formal detailed documentation and disposition of nonconforming product/material.

Corrective Action Report: A formal document used to note the finding, corrective action plans, and establish the verification plans and corrective action status.

Root Cause: The source or origin of a nonconformance, as well as any contributing factors involved.

- **4.0 Responsibility:** The President will insure the compliance to this procedure.
- **5.0 Procedure:** Prompt action is taken to change conditions that could result in unsafe situations, regulatory discrepancy, product or process non-conformance, or customer dissatisfaction. Prompt remedial action is always taken to correct nonconformity's following their detection. The decision to initiate corrective action (C/A) is based on an evaluation determining whether it is technically feasible, economically practical or contractually required to correct the cause of the nonconformity's. The President controls the issuance and review of all Corrective Actions.
- **5.1 Corrective Action (Initiation):** A C/A is initiated by any employee who judges that a nonconformity or substantial nonconforming condition has an adverse effect on C.A.P.C. product quality and that is considered preventable. C/A may be initiated by customers, suppliers, and/or in-house evaluation. This refers to a recurring or possible recurring problem. The decision whether an individual nonconformity is worthy of a C/A is based on product or process impact, and financial impact exceeding \$250.00 as determined by the Quality Manager. Corrections to a process or system may be accomplished without formal corrective action documentation as long as actions are taken to eliminate detected nonconformities and their causes. The following are examples of instances when formal documented corrective actions need not be created; (internal audit findings, process or system corrections, manufacturing system improvements, equipment, clerical, or personnel corrections in which the resources expended in the documentation of the correction will exceed the resources needed for the actual correction.) This determination shall be the responsibility of the Quality Manager.
- **5.1.1 Reviewing Nonconformities Including Customer Complaints**: The nonconformance (customer, supplier, and/or in-house) is reviewed by Quality personnel who determine if C/A is to be initiated. The review may include personnel from C.A.P.C.'s personnel, customer's personnel or any combination of persons approved by the Quality Manager. Customer complaints may not need corrective action, but must be reviewed to ensure required corrections as needed are implemented and reviewed for effectiveness.
- **5.1.2 C/A under MRB Authority:** When an MRB action or disposition has been directed from a customer, the C/A will be as required from the MRB document. This may part of a more comprehensive action which may include training, additional data for review, or other MRB directed action.
- **5.2 The originator** of the C/A describes the nonconformity and references the controlling documents such as quality procedures, specification, or bills of material. The President assigns a C/A number and a response date. The President determines the Department employee or supplier or customer representative who has responsibility over the nonconforming subject and who the best recipient would be.
- **5.3 The recipient** should have either first-line accountability or sufficient intimate knowledge of the operation to prevent the recurrence of the nonconformity. If the C/A was issued against a documented internal audit the applicable personnel may receive a copy of the audit report as applicable.
- **5.4 Determining the cause of the nonconformance by "Root Cause Analysis":** Corrective action will be based on the results of root cause analysis. The analysis will be conducted by inspection, testing, engineering models, teardown analysis, or laboratory deduction. Quality will document root cause analysis on the corrective action form as part of the total corrective action investigation and implementation. Root cause analysis shall include industry recognized techniques as applicable for the corrective action, such as 5 whys, Femeas, trend analysis, direct cause, process mapping, fishbone diagrams, contributing cause, symptom analysis etc. Root cause shall be determined prior to the implementation of the corrective action plan.
- **5.5 Evaluating the need for action to ensure that nonconformities do not recur:** The recipient investigates the nonconformity, determines its cause, and enacts remedial and corrective actions. The recipient then states the proposed implementation dates on the C/A. These are the dates when the remedial and corrective actions can be verified as complete.

Procedures Manual

Title: Corrective Action **Procedure Number:** 8.5.2

Page: 2 of 3

- **5.5.1 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 President or his trained 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 from failure report/data shall be controlled per section 5.1
- 5.6 Determining and implementing action needed: The President or his designee will document the corrective action required and implement a corrective action plan, and may issue the corrective action document to the personnel responsible for the nonconformity as applicable. The implementation plan shall (as applicable and/or required) include a corrective action owner, C/A response due date, Interim c/a plan, Long term c/a plans, Effectivity date or serial numbers, Root cause analysis (recording and reporting), Preventative Actions, Follow-up activity to determine if c/a was taken and effective, Cost benefit analysis / risk assessment, FEMAs, and customer required action. The President will be responsible for the implementation of the corrective action. Corrective action requiring equipment, training, or documentation change that is beyond his/her scope of authority, will confer with the applicable authorized responsible personnel for corrective action assistance. The President will follow up on all corrective action implementation for verification of completeness, verification that the corrective action was successful, and will verify that the documentation required was completed and acceptable. When required stock or inventory shall be purged and product controlled as dispositioned (scrap, rework, RTV, submit to the customer for review, etc.)
- **5.6.1 Corrections not formally written on C/A form:** For corrective action taken to eliminate detected nonconformities and their causes determined by the President not to need a formal C/A form, the nonconformity and corrections may be documented on a Work Order, Quality memo, training outline, meeting minutes agenda, or other quality document. The acceptance verification by the President or his designee will also be documented on a Work Order, Quality memo, training outline, meeting minute's agenda, or other quality document.
- **5.7 Records of results of action taken:** All corrective action related documents will be maintained as quality records. Formal corrective action forms, supporting data, inspections, observations, evaluations, reviews and implementation plans will be documented and placed in the corrective action file for that corrective action. Access by customers as required will be granted by C.A.P.C.
- **5.8 Reviewing The Effectiveness Of The Corrective Action Taken:** C.A.P.C. President or his designee will review the results of the corrective action after implementation, and with sufficient examples to determine if the root cause correction eliminated the cause of the nonconformance. Accepted corrective action will be closed by the President after conclusive evidence (as determined by the President or as required the Customer). Corrective action which does not correct or eliminate the nonconformance will be resubmitted and controlled per section 5.0 through 5.7 of this procedure.
- **5.9 Completion:** Each C/A is verified by a cognizant QA person designated by the President. In the case of the Supplier, either the buyer who handled the C/A or the President may also signs for verification of the Remedial and Corrective Action. Follow-up verification is mandatory to make certain that solutions, training, equipment corrections to Work Orders, or new work instructions will be permanent corrections to the problem and to ensure company objectives are being met. In the case of the In-house President or his designee may sign for verifications.
- **5.10 Customer Complaints:** All customer complaints will be directed to the President and will be controlled by the President as needing Corrective Action in accordance to this Corrective Action Procedure, until the Complaint has been reviewed and appropriate disposition performed. If actual corrective action is required it shall be performed and documented per this corrective action procedure. If the review and coordination with the customer determines that action less than formal corrective action is required, it shall be performed per customer requirement and disposition. All customer complaints regardless of the corrective action status shall be documented in a manner that can be recalled and analyzed for continuous improvement and trend data)
- **5.11 Supplier Corrective Action for Nonconformity:** All supplier corrective action shall be controlled and initiated per section 5.1. All supplier corrective action shall include notifying as applicable the purchasing Department supervision for inclusion into the supplier file for control per procedure 7.4.
- **5.12 Flow down of the corrective action requirement to a supplier, when it is determined that the supplier is responsible for the root cause:** The supplier will be issued a corrective action request. The supplier corrective action request will be document on the "Corrective Action Log" and will be tracked for supplier compliance. All supplier corrective actions shall be issued for response within 30 days.
- **5.13 Specific actions where timely and/or effective corrective actions are not achieved:** When timely (as determined by the corrective action due date) or effective corrective action is not achieved, the President will review the corrective action response in its current status and determine whether the current cause and corrections are worthy of additional time to respond or if the corrective action request needs to be elevated to the President. If additional time is granted, a new due date will be assigned. If the corrective action request is elevated to the President, his disposition shall be documented and considered as final. The responsible person will be notified appropriate actions as determined by the President or his designee will be taken. This system shall be applicable for internal and supplier corrective actions.
- **5.14 Determining If Additional Nonconforming Product Exists Based On The Causes Of The Nonconformities and taking further action when required:** Nonconformities of product and processes will be reviewed by the President or his designee(s) and part/process Quality History, Parts in Stock, Parts WIP will be reviewed to determine the extent of the nonconformity and to identify and control the nonconforming parts. As required Customer notification, part re-inspection, and dispositioning as allowed by customer contract will be implemented and documented.

Procedures Manual

Title: Corrective Action **Procedure Number:** 8.5.2

Page: 3 of 3

5.15 Findings (Customer, Internal, Supplier, or Internal Audit): findings will be classified as **Major Finding**: The absence of, or total breakdown of an applicable management element specified in the standard, customer requirement, or any non-conformities where the effect is judged to be detrimental to the integrity of the product or service. **Minor Finding:** A single system failure or lapse in conformance with a procedure relating to the standard or customer requirement.

Note: A number of minor non-conformities against one requirement can represent a total breakdown of the system and this can be considered as a major non-conformity

Opportunity for Improvement (OFI) or Observations: Quality system documents, processes, or practices noted by the Customer, Internal, Supplier, Internal Audit auditor or management that are new requirements and need to be fully implemented, may be upgraded to improve efficiency, are "Opportunity for Improvement", may enhance current documents, processes, or practices that are currently acceptable, or a discrepancy that can be corrected with minimal effort, training, or documentation. When a deficiency is noted, actions are taken without undue delay to eliminate detected nonconformities and their causes. The action will be taken by the management of the Department responsible, Quality Management, or as a team effort. All Major deficiencies require formal corrective action. Minor findings corrected without undue delay may not need formal corrective actions as long as actions are taken without undue delay to eliminate detected nonconformities and their causes, and the corrections are documented. When C/A's are formalized, they will be in accordance to this procedure (8.5.2). "Observations" and "Opportunity for Improvements" do not need formal corrective action responses.

5.16 Correction Verification: The Corrective Action Log will be reviewed by the President or his designee. When non-conformity does not require a formal corrective action, the action taken must also be reviewed by the President or his designee as applicable. Upon corrective action effectivity and implementation, the verification of the acceptability of the corrective action will be documented on the corrective action form and the log will be noted as complete. Objective evidence of the correction will be noted and/or attached to close out the corrective action.

6.0 Records: All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records" C/A logs and open C/A's are stored in the C/A binders or files and are C.A.P.C. confidential. External auditors may examine C/A files if they have a contractual "right to access" our manufacturing facility. Rejection/ Inspection/Quality Data, Corrective Action Form, Corrective Action Log

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| Α | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |

Procedures Manual

Title: Preventive Action **Procedure Number**: 8.5.3

Page: 1 of 1

- **1.0 Purpose:** This procedure establishes the guidelines for implementing preventive action that affect the C.A.P.C. product, process, documentation or potential nonconformance's. Preventive action will be implemented to the degree necessary to eliminate nonconformances and appropriate to the effects of the potential problems.
- 2.0 Scope: Applies to all Departments.
- 3.0 Definition: Preventive Action: Action to eliminate the cause(s) of a potential nonconformance(s) or other undesirable potential situation including recurrence control.
- **4.0 Responsibility:** The President will insure the compliance to this procedure.
- **5.0 Procedure:** Prompt action is taken to initiate preventive action to correct current or potential problems. The decision to initiate preventive action is based on an evaluation determining whether it is technically feasible, economically practical or contractually required to correct the cause of the nonconformity's. Quality controls the review and determination for implementing preventive action.
- **5.1 Determining potential nonconformance's and their causes:** The decision whether an individual nonconformity is should generate a preventive action plan is a subjective decision made by the Quality Manager. The determination of potential preventive action is made through review of quality records, internal audits, corrective actions, customer or supplier rejection or suspect product data, and process variation data, among other quality information sources. The cause of the nonconformity may be determined through procedure 8.5.2, team meeting, and technical review of the potential nonconformity, customer, supplier, or company initiation.
- **5.2 Evaluating the need for action to prevent occurrence of nonconformities:** The President with assistance from other personnel as required will review quality documentation and as required will initiate a corrective action plan to determine the need for action. The evaluation will be documented and maintained as a quality record.
- **5.3 Determining and implementing action needed:** The President will document the preventive action required, and will issue the action document to the personnel responsible for the nonconformity. The President will be responsible for the implementation of the preventive action. Preventive action requiring equipment, training, or documentation change that is beyond his/her scope of authority, will confer with the applicable authorized responsible personnel for preventive action assistance. The President will follow up on all preventive action implementation for verification of completeness, verification that the preventive action was successful, and will verify that the documentation required was completed and acceptable.
- **5.4 Records of results of action taken:** All preventive action related documents will be maintained as quality records. Formal preventive action data, observations, evaluations, reviews and implementation plans will be documented and placed in the preventive action file for that preventive action. Access by customers as required will be granted by C.A.P.C.
- **5.4.1 Preventive Actions not formally written on P/A form:** For Preventive action taken to eliminate potential nonconformities and their causes determined by the President not to need a formal P/A form, the potential nonconformity and corrections may be documented on a Work Order, training outline, meeting minutes agenda, or other quality document. The acceptance verification by the President or his designee will also be documented on a Work Order, training outline, meeting minute's agenda, or other quality document.
- **5.5 Reviewing the effectiveness of the preventive action taken:** C.A.P.C. President or his designee will review the results of the preventive action after implementation, and with sufficient examples to determine if the root cause correction eliminated the cause of the nonconformance. Accepted preventive action will be closed by the President after conclusive evidence (as determined by the President or as required the Customer). Preventive action, which does not correct or eliminate the nonconformance will be resubmitted and controlled per section 5.0 through 5.5 of this procedure.
- **6.0 Records:** All records will be maintained in accordance to procedure 4.2.4 "Control of Quality Records"

| Revision | Details | Date | Approval |
|----------|--|------------|----------|
| Α | Initial Release | 3/01/2006 | R.F. |
| В | Upgraded to ISO9001:2000 | 12/01/2008 | R.F. |
| С | Upgraded to ISO9001:2008 applicable elements | 5/1/2012 | R.F. |
| | | | |
| | | | |