POP 111- QUALITY ASSURANCE REQUIREMENTS FOR SUPPLIERS			
Revision	**Revision Description**	**Date**	**Approval**
6	Added paragraph 7.10.4.6 to flow down 01/ESCO requirements to suppliers when applicable for NCR-01 – 24/SQA/2021/01 Pratt and Whitney Poland audit.	6/20/22	RS, CM
5	Added paragraph a. under 7.13.2.A.a for instructions on red-tagging and identifying non-conforming parts.	7/31/19	KT, AY
4	Updated 7.10.1.1 title to include distributors and added PWA ASQR-01 Form 9 requirement to 7.10.2.5	1/07/19	AY
3	Added product safety, counterfeit parts, and right of access (6.3, 6.4, & 6.8)	10/9/17	AY
2	Added the PCC Code of Conduct to Section 1.1 and Section 12.0	09-14-17	AY, TF
1	Added Section 7.10.2.5 and revised Section 7.10.2.3 to comply with SQOP 01-01 Section 7.4.1 and AS9100 C requirements.	06-22-13	KT, CM
0	Original issue	12-22-08	CM, AR

1.0 PURPOSE

1.1 This specification describes the minimum Quality Assurance requirements and flows down the PCC Code of Conduct for suppliers who provide material and/or services to PCC Schlosser.

2.0 Scope

2.1 This specification applies:
- A. when specifically referenced in the order, or
- B. through other applicable PCC specifications or documents.

2.2 This specification describes:
- A. the supplier's obligation relative to purchase order requirements.
- B. the method by which approval status is granted, and
- C. considerations for controlled process.

2.3 By section, this procedure addresses:
- 3.0 Applicable Documents
- 4.0 Purchaser's Responsibility
- 5.0 Definitions
- 6.0 General Supplier Obligations
- 7.0 Minimum Quality Assurance Requirements
- 8.0 Additional Quality Assurance Requirements
- 9.0 Supplier Approval Status
- 10.0 Continuing Approval
- 11.0 Controlled Processes

12.0 PCC Code of Conduct

3.0 APPLICABLE DOCUMENTS:

3.1 Minimum requirements for the Supplier's Quality Assurance and Calibration Systems are described in section 7.0 and reflect excerpts from:

A.	MIL-I-45208	Inspection System Requirements
B.	ISO 10012	Measurement Management Systems – Requirement for Measuring Processes and Measuring Equipment
C.	ISO-9000	Quality Management Systems
D.	AS9100	Quality Management Systems-Aerospace Requirements
E.	AS9131	Quality Systems – Nonconformance Documentation

3.2 The latest revision of a document in effect at time of bid applies.

4.0 PURCHASER RESPONSIBILITY:

4.1 The purchaser shall invoke this specification on the purchase order when such requirements are a condition of the purchase order with its customer. Variations to these requirements are subject to the written approval of the purchaser.

5.0 DEFINITIONS:

5.1 PURCHASER – PCC SCHLOSSER

5.2 SUPPLIER – Subcontractor, vendor, et al, that is performing work for or supplying material or services to PCC Schlosser.

5.3 CONTROLLED MATERIAL/SERVICES – Material or services considered critical in their application or procurement, as defined by PCC Schlosser purchase specifications. "Controlled" shall be considered synonymous with "critical," "significant," "fixed," or "frozen." Whenever any of these terms are used on Purchase orders or specifications, the requirements of section 11.0 shall apply.

6.0 GENERAL SUPPLIER OBLIGATIONS:

6.1 Contractual Intent: This specification requires the establishment of a quality program by the supplier to provide adequate assurance that this specification along with all other contractual requirements are met. The program and procedures used to implement this specification shall be developed by the supplier. The quality program shall be documented

at least to the extent of the requirements of section 7.0 and shall be subject to the approval of the Purchaser.

6.2 The supplier shall establish, maintain, and document as part of their quality program, a self evaluation system that will assure internal compliance to their procedures.

6.3 The supplier shall assure that all production supervisors and workers are thoroughly trained in the methods and skills required to perform their tasks, i.e., the proper operation of instruments, tools and machinery used, reading, and understanding the documentation provided, the relationship of their duties to quality and safety in the workplace. The supplier shall ensure that persons are aware of their contribution to product conformity, product safety, and the importance of ethical behavior.

6.4 The supplier shall plan, implement, and control processes needed to assure product safety and counterfeit prevention and detection as appropriate to the organization and the product, i.e., assessment, analysis and reporting of events affecting safety, communication of these events, and training of persons on product safety and counterfeit parts prevention.

6.5 Relation to Other Contract Requirements: This specification and any other procedure or document intended to accomplish its requirements shall be in addition to and not in disagreement or conflict with any other contract requirements.

6.6 Purchaser, Purchaser's customers, and regulatory agencies shall be afforded right of entry into a supplier's facility and their subcontractor's facility to determine and verify the quality of contracted work, records, and material.

6.7 If the contract specifies a "DO or "DX" type DPAS rating, the supplier will be obligated to comply to all of the relevant provisions of section 15CFR350 of the Defense Priorities and Allocation System Regulation, including flowing such rating and requirements down to their own sub-contract sources.

6.8 PCC Schlosser requires access for its company representative(s) and/ or its customer representative(s), where applicable, to all facilities, product and/ or records pertaining to a PCC Schlosser order. In some cases, verification of product conformity occurs on the supplier's premises. Where applicable, notice of this intent is provided in the purchasing order documentation.

7.0 MINIMUM QUALITY ASSURANCE REQUIREMENTS:

7.1 MANAGEMENT RESPONSIBILITY:

7.1.1 System Description

7.1.1.1 The supplier's management shall define and document its policy and objectives for, and commitment to, quality. The supplier shall assure this policy is understood, implemented, and maintained at all levels of the organization.

7.1.1.2 Effective management for quality shall be clearly prescribed by the supplier. Personnel performing quality functions shall have sufficient, well-defined responsibility and authority, and the organizational freedom to identify and evaluate quality problems and to initiate, recommend or provide solutions.

7.1.1.3 The supplier shall appoint a management representative who irrespective of other responsibilities shall have defined authority and responsibility for ensuring that the requirements of this specification are implemented and maintained.

7.2 INITIAL QUALITY PLANNING

7.2.1 System Description

7.2.1.1 The supplier, during the earliest practical phase of contract performance, shall conduct a complete review of the requirements of the contract to identify and make timely provision for the special controls, processes, test equipment, fixtures, tooling, and skills required for assuring quality.

7.2.1.2 Records of such contract reviews shall be maintained.

7.2.2 For certain services rendered and detail items contracted for, PCC's work instruction will denote by reference the end-user (PCC customer) to whom the product will be delivered.

7.2.3 If specific end-user requirements necessary to satisfy technical and quality provisions are required, they will be so specified in the work instruction.

7.3 WORK INSTRUCTION:

7.3.1 System Description

7.3.1.1 The supplier shall assure that all work affecting quality shall be prescribed in clear and complete documented instruction of a type appropriate to the circumstances. Such instruction shall provide the criteria for performing the work functions and shall be compatible with acceptance criteria for workmanship. The instructions are intended also to serve for supervising, inspecting, and managing work.

7.4 RECORDS:

7.4.1 System Description

7.4.1.1 The supplier shall establish and maintain procedures for identifications, collection, indexing, filing, storage, maintenance, and disposition of quality records.

7.4.1.2 The supplier shall maintain and use any records or data essential to the effective operation of quality program. These records shall be available for review by the purchaser and copies of individual records shall be furnished at request.

7.4.1.3 Records are considered one of the principal forms of objective evidence of process completion and acceptance. The quality program shall assure that records are complete, reliable, retention times are established in writing and readily retrievable.

7.4.1.4 Inspection and testing records shall, as a minimum, indicate the nature of the observations together with the number of observations made and the number and type of deficiencies found.

7.4.1.5 Records for inspection and testing shall indicate the acceptability of work or products and the action taken in connection with deficiencies.

7.4.2 Special Requirements

7.4.2.1 Records of processing, inspection, and test which are of crucial importance in substantiating conformance to the order shall be retained for the duration specified in

the applicable purchase specification, or for a minimum of 10 years, whichever is greater. F-22 and JSF Inspection records must be retained for 20 years. Lockheed Space Shuttle Inspection records must be retained for the life of the program. When authorized by the purchaser, records may be submitted with the item/product to the purchaser for the purchaser's retention.

7.5 CORRECTIVE ACTION:

7.5.1 System Description

7.5.1.1 The supplier shall ensure the prompt detection and correction of assignable conditions adverse to quality. Corrective action shall include a minimum:

7.5.1.2 Analysis of data and examination of nonconforming or adverse conditions to determine extent and cause.

7.5.1.3 Analysis of trends in processes or performance of work to prevent the nonconformance; and

7.5.1.4 Introduction of required improvements and corrections, an initial review of the adequacy of such measures, and monitoring of the effectiveness of corrective action taken.

7.5.2 Special Requirements

7.5.2.1 When notified of a nonconformance relative to a material or service, the supplier is required to investigate immediately and report within fifteen (15) working days to the purchaser the root cause(s) and planned corrective action, and commitment date for ultimate correction.

7.6 DOCUMENT CONTROL:

7.6.1 System Description

7.6.1.1 The supplier shall ensure the adequacy, the completeness and the currentness of drawings and specifications, and shall control the affectivity of changes in design and/or contract.

7.6.2 Special Requirements

7.6.2.1 The supplier is responsible to ensure that all documentation (drawings, specifications and other) is available at locations where operations essential to the effective functioning of the quality system are performed and is of the correct revision status.

7.6.2.2 Government and general industry specifications are to be obtained from applicable sources. PCC will not supply these documents.

7.6.2.3 Specifications written by the purchaser and the purchaser's customer can be obtained directly through the purchaser.

7.6.3 Document Changes/modifications

7.6.3.1 Changes to documents shall be reviewed and approved by the same functions/organizations that performed the original review and approval unless specifically designated otherwise. The designated organizations shall have access to pertinent background information upon which to base their review and approval.

7.6.3.2 Where practical, the nature of the change shall be identified in the document or the appropriate attachments.

7.6.3.3 A master list or equivalent document control procedure shall be established to identify the current revision of documents in order to preclude the use of non-applicable documents.

7.6.3.4 Documents shall be re-issued after a practical number of changes have been made.

7.7 INSPECTION AND TESTING:

7.7.1 Receiving inspection and testing

7.7.1.1 The supplier shall ensure that incoming product is not used or processed (exception the circumstance described below) until it has been inspected or otherwise verified as conforming to specified

requirements. Verification shall be in accordance with the quality plan of documented procedures.

7.7.1.2 Where incoming product is released for urgent production purposes, it shall be positively identified and recorded in order to permit immediate recall and replacement in the event of nonconformance to specified requirements.

7.7.1.3 **NOTE:** In determining the amount and nature of receiving inspection, consideration should be given to the control exercised at source and documented evidence of quality conformance provided.

7.7.2 In-process inspection and testing

7.7.2.1 The supplier shall:

7.7.2.2 Inspect, test and identify product as required by the quality plan or documented procedures.

7.7.2.3 Establish product conformance to specified requirements by use of process monitoring and control methods.

7.7.2.4 Hold product until the required inspections and tests have been completed or necessary reports have been received and verified except when product is released under positive recall procedures. Release under positive recall procedures shall not preclude the activities outlined in 7.7.2.A.

7.7.2.5 Identify nonconforming product.

7.7.3 Final inspection and testing

7.7.3.1 The quality plan and/or documented procedures for final inspection and testing shall require that all specified inspection and tests, including those specified either on receipt of product or in process, have been carried out and that the results meet specified requirements.

7.7.3.2 The supplier shall conduct all final inspection and testing in accordance with the quality plan and/or documented procedures to complete the evidence of

conformance of the finished product to the specified requirements.

7.7.3.3 No product shall be dispatched until all the activities specified in the quality plan and/or documented procedures have been satisfactorily completed and the associated data and documentation are available and authorized.

7.7.4 Special Requirements

7.7.4.1 When certification is requested, the certificate shall include a statement of conformity declaring that the product has been tested and inspected (or processed) as specified and the results of these inspections and tests conform to requirements.

7.7.4.2 Computer generated certificates require either (a) an actual of facsimile signature, or (b) a letter accompanying the certificate. The letter must be signed by a responsible supplier representative, attesting that:

7.7.4.3 The typed name on the certificate is an authorized supplier representative.

7.7.4.4 The supplier is responsible for the information contained herein.

7.7.4.5 Except as stated in 7.7.6, first article requirements will be specified in the purchase order.

7.7.5 Measuring and Test Equipment

7.7.5.1 System Description

7.7.5.2 The supplier shall provide and maintain gages and other measuring and testing devices necessary to assure that the purchased material or service conforms to technical requirements. The calibration of measuring and testing equipment and of measurement standards shall be in conformance to ISO 10012.

7.7.5.3 Special Requirements

7.7.5.3.1 When required, gages, measuring, and testing devices shall be made available for use by the purchaser, at the supplier's facility, to determine conformance with contract requirements. If conditions warrant, supplier's personnel shall be made available for operation of such devices and shall verify the device's accuracy and condition.

7.7.6 First Article Inspection

7.7.6.1 (When specified) the supplier's system shall provide a process for the inspection, verification, and documentation of a representative item from the first production run of a new part or following any subsequent change that invalidates the previous first article inspection result.

7.8 PURCHASER SUPPLIED TOOLING AND MATERIAL (INCLUDED GOVERNMENT FURNISHED MATERIAL):

7.8.1 System Description

7.8.1.1 When tooling (e.g., jigs, fixtures, wax injection tools, core tools), or material (e.g., raw castings, plate stock for patches, revert to be refined or remelted) is furnished by the purchaser, the supplier's procedures shall establish requirements for initial and periodic assessment, adequate storage and protection, and maintenance of such equipment. Inspection, maintenance, and inventory records must be maintained.

7.8.2 Special Requirements

7.8.2.1 The supplier shall use PCC supplied products and tooling only in the manufacture and processing of PCC's products, and only under the contract specified.

7.8.2.2 Product included but is not limited to cast components, wrought materials, weld wire, revert to be refined or remelted, etc.

7.8.2.3 Tooling includes but is not limited to jigs, fixtures, wax injection dies, core dies, etc.

7.8.2.4 The supplier shall control PCC supplied tooling and/or product as follows:

7.8.2.5 Upon receipt, inspect for identification, general condition, completeness, and proper quantity, type, or size. Perform functional testing of tooling, where necessary prior to production processing, to ensure proper operation.

7.8.2.6 After inspection of 7.8.2.2.A, provide for identification and protection, periodic assessment, and controls necessary to ensure against loss, damage, or deterioration during handling, use, and storage.

7.8.2.7 Provide controlled movement, usage, and disposition to protect against unauthorized processing or merger with other materials.

7.8.2.8 Stop work and report unacceptable conditions immediately to PCC.

7.8.2.9 Unless otherwise addressed by purchase order or agreement, calibration of supplied tooling will be the responsibility of the supplier.

7.9 PRODUCTION TOOLING USED AS MEDIA OF INSPECTION:

7.9.1 System Description

7.9.1.1 When supplier owned production jigs, fixtures, tooling masters, templates, patterns, and such other devices are used as media of inspection, they shall be qualified by the Supplier for accuracy prior to release for use. After qualification, these devices shall be proved periodically by the Supplier for accuracy at intervals established in a formal manner to cause their timely adjustment, replacement, or repair prior to becoming inaccurate.

7.9.2 Special Requirements

7.9.2.1 Inspection devices described in 7.8.1 that are designed, built, modified, or purchased by the supplier must be under the control of 7.8.1. Devices supplied by the purchaser are exempt from the requirements of 7.8.1 and will be controlled under the purchaser’s

inspection system unless otherwise specified by purchase order or other agreement.

7.10 CONTROL OF PURCHASES:

7.10.1 System Description

7.10.1.1 Material and services procured from the supplier's subcontractors and suppliers which are deemed critical to the performance of the contract, must conform to the purchaser's contract requirements. The supplier's responsibility for the control of purchases includes:

7.10.1.2 Inclusion of all applicable references from the purchaser's order, blueprints, and specifications on instructions to the sub-tier supplier.

7.10.1.3 The evaluation of adequacy of procured items; and

7.10.1.4 Effective provisions for early information feedback and correction of nonconformances.

7.10.1.5 Assessment for use of sub-contractors and distributors

7.10.2 The supplier shall select sub-contractors on the basis of their ability to meet sub-contract requirements, including quality requirements. The supplier shall establish and maintain records of "acceptable sub-contractors" previously demonstrated capability and performance

7.10.3 The supplier shall ensure that quality system controls are effective.

7.10.3.1 Purchasing data:

7.10.3.1.1 Purchasing documents shall contain data clearly describing the product ordered, including, where applicable;

7.10.3.1.1.1 The type, class, style, grade, or other precise identification.

7.10.3.1.1.2 The title or other positive identification, and applicable issue of specifications, drawings, process

requirements, inspection instructions and other relevant technical data, including requirements for approval or qualification of product, procedures, process equipment and personnel.

7.10.3.1.1.3 The title, number, and issue of the quality system standard to be applied to the product.

7.10.3.1.2 The supplier shall review and approve purchasing documents for adequacy of specified requirements prior to release.

7.10.3.1.3 The supplier shall ensure that both the supplier and sub-tier supplier's equipment, processes, operators, and inspectors are certified or qualified as required by specification (or other reference document) and that such certification or qualification is documented accordingly.

7.10.3.1.4 It is the supplier's responsibility to obtain full compliance from sub-tier suppliers.

7.10.3.1.5 The supplier shall ensure that raw materials to be used in fabrication or processing of products conform to the applicable physical, chemical, and other technical requirements. Laboratory testing shall be employed, as necessary. When certifications are required, the actual quantitative test values shall be provided.

7.10.4 Special requirements:

7.10.4.1 The supplier shall not subcontract work (the order) without express permission from the Purchasing or Quality Departments of the purchaser. Where subcontracting is permitted, the supplier shall use only those sources designated or authorized by the purchaser and the purchaser's customers.

7.10.4.2 When it is specified by the purchaser that an approved lab must be used for testing, the test lab used must be approved by the purchaser. This in no way reduces or eliminates the supplier's responsibility for testing performed by supplier's selected lab.

7.10.4.3 The supplier shall not under any circumstance accept for use a material or service which is in variation from the purchaser's contract without first obtaining express written approval from the purchaser. In some cases, approval from the purchaser's customer may also be required.

7.10.4.4 Any purchased material or service applicable to a controlled process of Section 11.0 shall be considered critical, and all requirements of Section 7.9 shall apply.

7.10.4.5 The supplier shall request approval from the purchaser before making any changes to suppliers (subcontractors), and changes in manufacturing facility location (including subcontractor change in location). In some cases, approval from the purchaser's customer may also be required. For Pratt & Whitney, ASQR-01 Form 9 must be used to request changes to the Qualified Distributor List (QDL).

7.10.4.6 In the case of Pratt & Whitney Poland, the supplier shall flow down 01/ESCO requirements to the supplier when applicable.

7.11 PROCESS CONTROL:

7.11.1 System Description

7.11.1.1 The supplier shall ensure that all machining, heat treating, hipping, x-ray, etc., and all basic production operation of any type, together with all processes and fabrication of any type, shall be accomplished under managed conditions. Managed conditions include documented work instruction, adequate production equipment, any special working environment, and qualification or certification as may be applicable.

7.11.1.2 Inspection and monitoring of processed materials or services shall be accomplished in any suitable manner prescribed by the supplier, unless otherwise specified by the purchase order.

7.12 HANDLING, STORAGE AND DELIVERY:

7.12.1 System Description

7.12.1.1 The supplier shall provide adequate work and inspection instructions for handling, storage, preservation, packaging, and shipping to protect the quality of materials and prevent damage, loss, deterioration, degradation, or substitution.

7.13 NONCONFORMING MATERIAL:

7.13.1 System Description

7.13.1.1 The supplier shall establish and maintain an effective system for controlling nonconforming material, including procedures for its positive identification, segregation, and disposition.

7.13.2 Special Requirements

7.13.2.1 The supplier shall not rework, repair, substitute or subject material to operations or processes which are not otherwise authorized in the contract. Nonconformances of this nature shall be promptly referred in writing to the purchaser for the purchaser's disposition.

7.13.2.2 For any nonconformances please RED-tag the nonconforming part and record the NCR No. on the report for the item(s) that is/are nonconforming as well as make a note on the C of C. Please notify via email PCC Quality and Engineering of the nonconformance ahead of sending the parts back to PCCS.

7.13.2.3 Nonconforming materials are not to be delivered without the express written approval of the purchaser regardless of any previous conditional acceptance.

7.13.2.4 On items previously delivered, the supplier is required to notify the purchaser within twenty-four (24) hours of the detection of any nonconformance which exists or may exist. Escape information shall be recorded onto a Notification of Product Quality Escape letter and promptly referred to PCC.

7.14 INDICATION OF INSPECTION STATUS:

7.14.1 System Description

7.14.1.1 The supplier shall maintain a positive system for identifying the stage of processing (inspection status) of material. Identification may be accomplished by means of stamps, tags, routing cards, move tickets, tote box cards or other control devices.

7.14.2 Special Requirements

7.14.2.1 If inspection stamps are used, they should be of design which cannot be mistaken for government stamp.

7.15 SOURCE INSPECTION:

7.15.1 System Description

7.15.1.1 The supplier's system must provide for the following when Government Source Inspection is required by purchase order:

7.15.1.2 Prompt notification to the Government Representative upon receipt of the order.

7.15.1.3 Prompt purveyance of copies of the purchase order to the Government Representative upon receipt of the order.

7.15.1.4 Availability at site of all documents and reference data for review by the Government Representative.

7.15.1.5 Purveyance of copies of purchasing documents as instructed by the Government Representative.

7.15.2 Special Requirements

7.15.2.1 When source inspection at supplier facilities is required, the purchase order will so state. The Government and the purchaser reserve the right to inspect at the supplier facilities. Source inspection shall not constitute acceptance; nor shall it replace the supplier's inspection or otherwise relieve the supplier of responsibility to furnish acceptable material or service. Source inspection is not to be used as evidence of effective inspection.

7.16 PRODUCT IDENTIFICATION AND TRACEABILITY

7.16.1 Where appropriate, the supplier shall establish and maintain documented procedures for identifying the product from receipt and during all stages of production, delivery, and installation.

7.16.1.1 Where, and to the extent that, traceability is a specified requirement, individual product or batches shall have a unique identification. This identification shall be recorded.

7.16.2 Special Requirements

7.16.2.1 PCC Schlosser lot control and serialization traceability shall be maintained at all times.

8.0 ADDITIONAL QUALITY ASSURANCE REQUIREMENTS:

8.1 SOFTWARE QUALITY ASSURANCE

8.1.1 System Description

8.1.1.1 When MIL-S-52779 and/or a controlled material or service is specified by purchase order or other agreement, a system must be developed and implemented by the supplier to assure that software meets the contractual requirements. The system will consist of methods, documentation and control of systems analysis, design, software development, acquisition, use cataloging, storage, revision, audit, and testing.

8.1.2 Special Requirements

8.1.2.1 When MIL-S-52779 and/or controlled material/service is specified by purchase order or other agreement, the supplier shall establish and implement a Software Quality Assurance Plan (S.Q.A.P.) to ensure that deliverable software, and non-deliverable software used directly for the design, processing, inspection, test or operation of deliverable materials is controlled and complies with the intent of MIL-S-52779 requirements. The S.Q.A.P. will detail the methods to be used and the responsibilities and identification of personnel and/or positions involved with specific software systems.

8.1.2.2 For deliverable software and software contained in deliverable materials, all elements of MIL-S-52779

must be addressed and appropriately tailored in the S.Q.A.P.

8.1.2.3 The supplier may be required to submit the S.Q.A.P. to the Purchaser's Quality Department via Purchasing, prior to contract award, for review and approval.

8.1.2.4 For non-deliverable software such as CAD, CAM, CAI, and ATS, the S.Q.A.P. shall, as a minimum, address the following requirements:

8.1.2.4.1 Software Development – A system for the development, acceptance, and implementation of software must be established. The system must include test procedures, authorizations required, and method of software acceptance.

8.1.2.4.2 Software Test Criteria – Responsibility for delineating the criteria for demonstrating that software is adequate for its intended use must be established.

8.1.2.4.3 Documentation – Program requirements shall be thoroughly documented to provide the basis for subsequent software maintenance. Test criteria used and required approvals by supplier's quality department shall be documented.

8.1.2.4.4 Library Controls – Suppliers shall ensure that different software versions are identified that no unauthorized modifications are made, that all approved modifications are properly incorporated, and that software in use is the correct approved version.

8.1.2.4.5 Subcontractor Control – Suppliers shall ensure the requirements of this section (section 8.1) are flowed down to their sub-tier suppliers. Suppliers shall identify the approval authority for sub-tier supplier S.Q.A.P.'s.

8.1.2.4.6 For suppliers using non-deliverable software, the S.Q.A.P. shall be subject to review and disposition by the purchaser.

8.2 STATISTICAL QUALITY CONTROL:

8.2.1 System Description

8.2.1.1 When specified by purchase order or other agreement, a program for statistical quality control shall be developed and implemented by the supplier. Statistical methods, planning, analysis, tests, and quality control procedures may be used whenever such procedures are suitable to maintain the required control of quality. The purchaser reserves the right to review such procedures and approve or disapprove where reasonable concern for the assurance of quality is given.

8.2.2 Special Requirements

8.2.2.1 Sample inspection is not allowed.

8.2.2.2 Statistical quality control should be demonstrated by analysis of objective quality evidence prior to proposed new or reduced inspection procedures except where:

8.2.2.3 Final inspection is performed by destructive testing.

8.2.2.4 Subsequent inspection at a later operation will provide the necessary quality assurance.

8.2.2.5 Statistical process controls that are not used to determine quality conformance of materials or services may be used at the supplier's discretion.

8.3 QUALITY COSTS:

8.3.1 System Description

8.3.1.1 When specified by purchase order or other agreement, the supplier shall maintain and use quality cost data as a management element of the quality program.

8.3.2 Special Requirements

8.3.2.1 The supplier's Quality Cost program shall include identification, documentation, and analysis of the costs of prevention, appraisal, correction, and failure.

8.3.2.2 At the request of the purchaser, the supplier may be required to demonstrate the effective use of this data as a management tool.

9.0 SUPPLIER QUALIFICATION

9.1 Supplier Evaluation: The purpose of the Supplier Quality Evaluation is to verify that the supplier has the systems and procedures necessary to assure compliance to this document and other contractual requirements. Arrangements for a system appraisal will normally be made through Purchasing. During the appraisal, the purchaser's Quality representative, with assistance from the supplier, shall complete the specific items of the Supplier Quality Survey Form.

9.2 The appraisal may include a tour of the supplier's facilities to determine if the organization, procedures, techniques, etc., are in effect. Appraisal criteria will include, but not be limited to the following:

9.2.1 Quality System

9.2.2 Calibration System and adequacy of calibration procedures.

9.2.3 The adequacy of the operation, methods, and facilities as they affect quality workmanship (e.g., plant layout, hand tools, personnel, fixtures, equipment, etc.).

9.2.4 A comparison of the workmanship standards of the supplier to that of the purchaser's requirements.

9.3 Where deficiencies are noted, the Supplier will be required within fifteen (15) working days to initiate statements of cause, corrective action, and effectivity. Approval will be granted, extended, or denied, based upon the acceptability of the statements. The purchaser reserves the right to verify, by survey or other means, that corrective action is effective. (Reference paragraph 7.5.)

10.0 CONTINUING APPROVAL:

10.1 The supplier's approval status shall remain in effect provided all of the following apply:

10.1.1 The supplier performs work for the purchaser on a routine basis.

10.1.2 The supplier Quality Rating is satisfactory.

10.1.3 Quality Surveys are satisfactory.

10.1.4 The supplier performs within the limits of the approval.

10.2 The supplier approval status may be revoked whenever any one of the following applies:

10.2.1 The supplier does not perform work for the purchaser for a period of twelve (12) consecutive months.

10.2.2 Supplier or Quality Survey results are unsatisfactory.

10.2.3 The supplier violates (without prior approval) the limits of the approval certificate.

10.2.4 The supplier fails to take prompt corrective action when requested by the purchaser.

10.3 A supplier who is denied continuing approval will be so notified by the Purchaser. The notification will specify the reason for denial and may include recommended action necessary to regain the approval status.

11.0 **CONTROLLED PROCESSES:**

11.1 When a material or service is designated by purchase order or other agreement as being subject to controlled process, the supplier shall be required to:

11.1.1 Submit work instruction and applicable procedures to the purchaser for approval.

11.1.2 In the event of proprietary elements, demonstrate to the Purchaser a program of configuration management and subsequent assignment of code numbers to the process.

11.1.3 Submit to the purchaser for approval any proposed change to the process or materials, or to suppliers.

11.2 The Supplier shall submit the controlled process package to the attention of the purchase agent at the earliest opportunity after order acceptance.

11.3 Upon establishment of an approved controlled process, the Supplier shall not modify, substitute, or otherwise change the process without the written approval of the Purchaser. This includes, but is not limited to:

11.3.1 Material
11.3.2 Equipment
11.3.3 Processes

11.4 The Purchaser reserves the privilege to submit controlled process packages to its customer for approval.

11.5 When requested by the purchaser, the supplier shall supply samples and data for correlation of their inspection techniques with those of the purchaser.

12.0 **PCC CODE OF CONDUCT:**

12.1.1 Precision Castparts Corp. including each of its subsidiary companies strive to perform with integrity in all we do, and we expect the same from our suppliers, contractors, agents, and consultants (collectively referred to as “Suppliers”). Suppliers must be likewise committed to lawful, ethical, fair, and reasonable practices and must fully comply with applicable legal and regulatory requirements in their business relationships with PCC and PCC Companies. The Supplier Integrity guide flowed to you when you initially became a Supplier as well as the PCC Code of Conduct work hand in hand. The Supplier Integrity Guide is available from PCC Schlosser at your request.

12.1.2 Please see PCC Code of Conduct (available at: http://www.precastcorp.com/web/user_content/files/code_of_conduct_-_english.pdf) and is intended to remind Suppliers of PCC’s minimum expectations.

12.1.3 As a PCC Supplier, you are expected to report any concern related to PCC’s Code of Conduct and the Supplier Integrity Guide to PCC, as allowed under any local laws and any legal restrictions that might apply as soon as the issue arises. This is true whether or not the concern directly involves you as a Supplier. We also ask that you take any steps necessary to assist PCC with our investigation of the issue reported. PCC will not tolerate retaliation against any person for reporting a concern involving PCC’s Code of Conduct or the Supplier Integrity Guide. Please use the following resources to make that report to:

12.1.3.1 Local management at PCC Company involved;

12.1.3.1.1 PCC’s Ethics Hotline: 1-800-261-8651 (or local number posted at any PCC group company facility) or www.ethicspoint.com; or

12.1.3.1.2Anyone in PCC’s Corporate Legal Department