



Supplier Quality Requirements Manual
SPD-0002

Our Quality Philosophy:

Where Quality is a Way of Life

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Supplier Quality Requirements Manual	Last Revision Date 11/06/08	Revision Number 2
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Penn United Supplier Quality Requirements Manual

1. **INTRODUCTION**

This document has been developed to help suppliers understand the quality requirements necessary to ensure a successful relationship with Penn United Technologies, Inc. (PUT). Communication and cooperation are key elements in achieving these high standards.

PUT expects its suppliers to have the following basic business philosophies:

- A. The achievement of ZERO DEFECTS as a fundamental objective for quality and 100% ON TIME delivery performance.
- B. The Management of facilities, processes, quality systems and personnel to consistently and cost effectively manufacture products and furnish services that meet the needs of PUT and their customers.
- C. Be committed to continuous process improvement by emphasizing reduction of part-to-part variation and the elimination of all waste.
- D. To conduct operations in conformance with, or to exceed, all applicable environmental laws and regulations of the jurisdictions in which the supplier does business.
- E. To view as being fully responsible for their products and therefore, ensuring that materials are produced in conformance to the required standards with an expectation that PUT will receive defect free product, on time, at the agreed upon terms.

2. **SCOPE**

This specification defines the minimum quality management system requirements, for the supply of materials or services for use in production or non-production applications within PUT.

NOTE: Additional requirements are included in this specification for those suppliers that are providing materials that are used for Automotive and Aerospace Industry customers. These additional requirements will be noted on the purchase order when applicable.

Revision of this Specification PUT reserves the right to make changes to this specification and specifications referenced herein. Hard copies of this specification may not be updated. The current version of this document is available on the PUT web site at www.pennunited.com under the Supplier section. The supplier is responsible for ensuring that they are using the current version of this document.

3. **APPLICABLE DOCUMENTS AND FORMS**

The following documents and forms constitute a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies.

3.1. Specifications

MOP0003 Corrective and Preventive Action Process

3.2. Forms

Supplier Corrective Action Report and Nonconformance Report.

3.3. Industry Standards

- A. ISO 9001: Quality Management Systems Requirements
- B. ISO 10012: Measurement management systems - Requirements for measurement processes and measuring equipment
- C. ISO/IEC 17025: General Requirements for the Competence Of Testing and Calibration Laboratories
- D. ISO/TS 16949: Quality Management Systems – Particular Requirements for the Application of ISO 9001 for Automotive Production and Relevant Service Part Organizations

E. AIAG Reference Manuals

- Advanced Product Quality and Control Plan Manual (APQP)
- Failure Mode and Effects Analysis Manual (FMEA)
- Statistical Process Control Manual (SPC)
- Measurement System Analysis (MSA)
- Production Part Approval Process Manual (PPAP)
- CQI: 9, 11, and 12

4. DEFINITIONS**4.1. Certificate of Analysis**

A document provided by a supplier that reports and certifies the actual chemical and/or physical results of the tests performed on a shipment of products or materials.

4.2. Certificate of Conformance

A certificate provided by a Supplier to PUT with a lot of material to confirm that all material in the lot conforms to all applicable specifications.

4.3 Base Metal Material Supply

Suppliers of metals in forms of sheet, strip, rod, bar, powders, etc.

4.4 Outsourcing (Components, Finished Goods, and Processes)

Products produced to component drawings (i.e.: plating, heat treating, coating, moldings, die details, etc.)

4.5 Commercial and Packaging Items

Products supplied by a distributor and packaging components (i.e.: boxes, bags, reels, chemicals, nuts, bolts, pins, bushings, etc.)

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6. GENERAL

6.1. Quality Policy

We are committed to quality in everything we do. We believe that quality is more than just a policy but a way of life.

We are committed to:

- Providing products and services, which consistently meet and exceed the needs of our customers.
- Involving all of Penn United Employees in never-ending improvement in the quality of products and services we provide.
- Employing the best people and providing each with the training and the necessary tools to contribute to this quality effort.

6.2. PUT Core Values and Vision

A. Vision

To develop Penn United Technologies as a lasting entrepreneurial organization which strives to achieve the highest standards and to be the model by which employees, customers, suppliers, other businesses, and the community measure excellence.

B. Ethical Principals

We will build integrity, excellence, dedication, and accountability into everything we do. We will do what is right regardless of the cost.

C. Employees

We will develop, empower, and challenge our employees so that each one can enjoy their work, make a significant contribution, and share in the success of the company.

D. Teamwork

We will apply the different gifts and talents that God has given us to achieve His purpose. We will develop an environment of trust that encourages the sharing of ideas and information. Our strength is in working together.

E. Innovation and Progress

We will creatively improve our products and processes and be open-minded to new opportunities. We will be pioneers in our industry.

F. Customer Service

We will consistently meet or exceed our customer's requirements, honor all of our commitments, and provide long-term support.

G. Community and Society

We will improve and transform our community by creating employment, supporting local businesses, and being involved in our political and educational systems.

6.3. Supplier Support

As an extension of our internal operations, suppliers are expected to commit to providing this same, high level of commitment to quality, (Zero Defects), requested delivery (100% on Time), continual improvement and customer satisfaction. A supplier shall specify any exceptions to the requirements of this document, drawing, terms and conditions and request for quote or purchase order. Exceptions shall be in writing and must be approved by an authorized PUT Representative.

7 SUPPLY BASE

7.1. Supplier Evaluation

- A. Suppliers of materials and outsourcing services that could impact product quality or delivery shall be evaluated prior to classification as an approved supplier. Suppliers are required to complete a supplier evaluation form (FM-0463), which will be sent once Penn United Purchasing Manager has approved a "New/Temporary Supplier". Distributors of standard products are exempt from this requirement.
- B. These evaluations are required to be returned within reasonable time after addition of a supplier to the conditionally approved supply base and may be repeated periodically to ensure that the supplier's quality management processes are maintained or enhanced.
- C. A representative of PUT Purchasing/Quality Department will formally notify the supplier of the results of these evaluations. On site assessments may be required as a result of the evaluation. Corrective action shall be required when the result of an onsite assessment fails to meet the established minimum requirements of this Specification.
- D. Suppliers are encouraged to earn third party registration to ISO 9001, ISO/TS 16949 or SAE AS 9100 or ISO 13485 or equivalent national standard. Automotive suppliers must be at a minimum ISO 9001 certified or have a certification plan. Suppliers must provide a copy of their current certificate to PUT.

7.2. Supplier Responsibilities

- A. **Requirements for Quoting**
The PUT buyer shall provide requests for quotation. All applicable Drawings and related specifications shall accompany any Request for Quotation. Suppliers are to respond to the request for quote within the allocated time to the appropriate buyer. All requests for exceptions to the requirements shall be documented; otherwise, full compliance with these requirements is expected.
- B. **Purchase Order Conditions**
The supplier must agree to the terms and conditions set forth in the Penn United Technologies, Inc. Terms and Conditions or applicable contract condition, all disagreements are to be resolved prior to a purchase order being accepted. Acceptance of the purchase order constitutes agreement to all PUT terms and conditions.
- C. **Confidential Information**
All drawings, data, designs, specifications, tools, materials, and other property furnished by PUT shall be confidential, shall remain PUT's property, shall be used by the Supplier only in the performance of this Purchase Order, and together with all copies, shall be redelivered to Penn United or destroyed by the Supplier as PUT specifies. Supplier assumes all risks of loss or damage to any such drawings, specifications, tools, materials, or other property, and shall redeliver the same to PUT (when specified by PUT) in the same condition as when received by Supplier except for reasonable wear and tear of utilization in the performance of this Purchase Order. This Purchase Order is confidential between PUT and Supplier, and it is agreed by Supplier that none of the details connected herewith shall be published or disclosed to any third party without PUT's written permission.
- D. **Specification and Document Review**
 - 1. Prior to acceptance of the purchase order, the supplier shall review all drawings and documents to ascertain that they are to the engineering revision level specified on the purchase order. The supplier shall notify the appropriate buyer/authorized procurement personnel of any errors or omissions. PUT will either correct the error or arrange for a temporary deviation until correction can be made. The supplier shall not implement changes to any PUT document without prior approval having been issued in writing by the PUT buyer.

2. The supplier will establish a process to ensure the timely review, distribution and implementation of authorized drawing and document changes.

E. Policy on Subcontract Jobs

The Supplier is not to subcontract any work related to any given purchase order or place any PUT tooling with subcontractors without notification and written permission from PUT. Permission from PUT for the use of a subcontractor does not relieve the supplier of meeting the requirements of this document.

F. Notification of Product or Process Changes

PUT must ensure that its customers receive product that is consistent with drawings, product specifications, and inherent performance requirements. To facilitate this requirement for consistency, PUT requires that the supplier provide prior written notice to the Procurement when product, process or manufacturing location changes are proposed. The responsible buyer must be contacted prior to any changes being implemented as the requirements vary for the different PUT individual Groups.

7.3 General Requirements for suppliers of production material

- A. Any material found not to meet specified requirements might be rejected at any stage in the production process. The material and any suspect lots traceable to defective material may be returned to the supplier for credit or replacement. The supplier shall retain lot inspection data for an agreed upon term of time. Copies of inspection data shall be provided upon request from PUT.
- B. All shipments to be labeled as a minimum with part number stated on the Purchase Order, Purchase Order number, product/material Revision level, quantities, and lot#.
- C. When specified on the PUT purchase order, or during the introduction of a new material, one copy of the C of A, shall be submitted by the supplier to the designated location for each lot of material shipped.
- D. The C of A shall certify that the material meets all specified requirements.
- E. Suppliers in North America shall comply with title 19 of the Code of Federal Regulations, U.S. Customs (www.customs.gov/nafta/docs/us/134.html). Suppliers shall provide, every calendar year, a NAFTA certificate of origin.
- F. Materials must be ROHS compliant.

7.4. Base Metal Material Suppliers

In addition to 7.3 the supplier shall have responsibility for:

- A. Maintaining and providing unit container traceability and identity of all lots of material supplied by the original manufacturing, e.g.; heat, master coil, packing list, trace number, etc.
- B. Ensuring that the base metal is properly identified with the following minimum information:
 1. PUT Purchase Order Number is required on the packing list and on the unit container label/markings)
 2. PUT Raw Material Part Number per the purchase order is required on the packing list and on the unit container label/markings)
 3. PUT Material Specification and applicable Finish Specification Number(s) and the current revision level(s) (Preferred on the packing list)
 4. Temper (When applicable)
 5. Nominal Dimensions and chemical composition.
 6. Any other special material identification or information needed locally as negotiated and/or agreed to by the supplier and the PUT buyer and specified on the purchase order (e.g. special trace number, statistical data, etc.)

7. A Certificate of Analysis of the chemical composition of each material is to accompany each shipment per each lot of material purchased.

C. Packaging shall be in accordance with the requirements specified on the Purchase Order.

7.5. Components, Finished Good, and Processes

A. All components, finished goods, and special processes supplied to PUT shall meet the requirements of the PUT product drawing or other purchase order requirements.

B. The supplier shall be responsible for maintaining and providing unit container traceability and identity of all lots of material supplied by the original manufacturing, i.e. lot to lot, on the individual unit containers.

C. Packaging shall be in accordance with the requirements specified on the Purchase Order and/ or the control plan. If not specified, products shall be packaged to prevent damage and contamination.

7.6. Commercial and Packaging Items

A. All commercial and packaging items supplied to PUT shall meet the requirements of the Penn United product drawing and/or other purchase requirements.

B. The supplier shall be responsible for maintaining and providing traceability and identity of all lots of material supplied by the original manufacturing, i.e. lot to lot, on the individual unit containers when required by the PO.

C. Packaging shall be in accordance with the requirements specified on the Purchase Order.

7.7. Laboratory Accreditation

When requested, Suppliers must provide raw material test data from a laboratory that is currently accredited through a 3rd party firm to ISO/IEC 17025 or national equivalent.

7.8. Verification of Quality

A. PUT and its customers reserve the right to perform any testing or inspection that may be necessary to determine that the purchase order requirements have been met, including verification at the supplier's location if required. The supplier may be required to submit test or inspection data corresponding to the lot(s) being tested or inspected for comparison or correlation purposes.

B. Product accepted at receiving inspection may be found to be nonconforming during the manufacturing process. The supplier is liable for such product unless specified shelf life has been exceeded.

7.9. Continual Improvement

PUT expects that each of its suppliers support continual quality and delivery improvement by formulating and implementing continual quality and delivery improvement plans.

7.10. Design Review/Early Involvement

A. In some cases a Design Review is conducted for new marketable product and/or application tooling under development or whenever a change affecting form, fit, or function is to be made to an existing product. There may be multiple phases to a Design Review.

B. Before any discussion of information, the supplier shall be requested to sign a Nondisclosure Agreement initiated by purchasing and the Legal Department to ensure complete confidentiality.

- C. The supplier may be involved in the Concept and Development phases. PUT will work with the supplier to ensure the supplier's ability to manufacture the product to meet requirements at the lowest total cost. At this time all applicable specifications are developed and implemented for the manufacture of the product. Communications and a good working relationship are welcomed and imperative to maximize the efficiency of the Concept and Development phases.

8. QUALITY ASSURANCE SYSTEM

8.1. General Requirements

The supplier is responsible for the quality of any process that affects the configuration, assembly, heat treatment, plating, and/or metallurgical properties of PUT material.

8.2. Process Controls

The supplier is responsible for adopting the necessary techniques and controls during all phases of manufacturing to ensure that the quality of the product being produced is both known and controlled. As a measure of continued process improvement, a capability study or on going SPC may be requested on key characteristics, as agreed to by PUT and the supplier. The supplier shall submit data or evidence of performance when required by PUT Procurement. In the absence of specified capability requirements, a minimum Cpk value of 1.33 will be considered standard. A supplier cannot modify established processes without written agreement from the PUT buyer.

8.3. Inspection

When indicated on the purchase order, first article inspection approval shall be obtained from the Supplier prior to initiation of full production. The supplier is responsible for notifying Purchasing when first article samples and inspection data are available. Purchasing will make arrangements with the supplier to review the first article data and samples. First article approval does not relieve the supplier of the responsibility of assuring that subsequent production is in accordance with documented requirements.

8.4. Calibration System

- A. Responsibility for the supply, maintenance, and calibration of standard measurement and test equipment, such as pin gages, thread gages, micrometers, comparators, multimeters, etc. rests with the supplier.
- B. Provision for special measurement and test equipment, unique to a specific purchase order or product, shall be negotiated at time of contract placement. Calibration and maintenance of such special equipment rests with the supplier, unless otherwise specified in the contract.
- C. Gages, measuring devices, and testing equipment used to determine the acceptability of materials and tooling used in production shall be controlled and calibrated in accordance with the current revision of ISO 10012 or equivalent national standard.

8.5. Product/Material Nonconformance

- A. If a non-conformance is discovered by the supplier, the supplier shall be responsible for notifying the respective PUT buyer of non-conforming material and any already shipped non-conforming material to ensure containment of the entire lot or order of material.
- B. If the non-conformance is found by PUT, by PUT's Customer, or by an agent of PUT, upon communication of the details of the non-conformance to the supplier it shall be the responsibility of the supplier to quarantine all lots of non-conforming material. This shall include the present lot, or any lot currently being inventoried or shipped, to await disposition. In the event that PUT requires rework or sorting of product to meet customer requirements, suppliers may be charged back for all expenses incurred by PUT as a result of delivery or quality problems attributed to that supplier. Charge backs may be transacted

as a debit against open invoices. Hourly rates to be charged will be the current local rate charged by the affected PUT manufacturing location.

Examples of typical non-conformities are when the material does not conform to:

- a. The PUT purchase order
 - b. Specified Raw Material Part Number
 - c. Applicable PUT Specifications
 - d. Product drawing
 - e. Or applicable Supplier Specification
- C. If a supplier scraps or otherwise renders unusable material or semi-finished product provided by PUT, the supplier shall be responsible for replacement costs to PUT including materials, labor, and transportation.

8.6. Request for Deviation

- A. The supplier is responsible for meeting all the requirements of the purchase order, drawings, and PUT Specifications or Industry Standards or Specifications (e.g., EIA, ASTM, etc.) when specified or applicable. Material that does not conform to these requirements shall not be shipped to PUT, its customers or other suppliers without prior written approval having been given in the form of an approved Deviation Request.
- B. Request for deviation from requirements shall be brought to the attention of the PUT buyer. Approval or disapproval of supplier deviation requests will be documented and communicated to the supplier.
- C. When requesting a deviation, PUT may require a statement of corrective action, person responsible for the corrective action, and estimated date of implementation of corrective action to prevent recurrence of the nonconformance.
- D. Supplier shall identify, store, and ship deviated nonconforming material in such a manner as to keep it separate from conforming material. The deviation number is to be noted on the packing slip, and when requested, on all shipping containers.

8.7. Resubmitted Product

- A. Rejected shipments may be resubmitted only after the supplier has reworked or removed all defective items and has re-inspected the product to determine that all requirements have been met.
- B. Resubmitted shipments shall be accompanied by a copy of the PUT NCR or equivalent showing the rework/sorting performance results and should be preceded by notification to the PUT buyer and/or appropriate PUT Supplier Quality Assurance function of the course of action taken.
- C. PUT retains all rights with respect to resubmitted shipment same as with the original lots.

8.8. Corrective Action

- A. Buyers shall coordinate activities that assist the suppliers in eliminating all situations that, based on status and importance, could cause delays, rejections, rework, deviations, excessive scrap, or any condition that impairs the supplier's ability to meet established requirements. When requested, the supplier will submit a corrective action plan that provides the details of how the nonconformity will be resolved. The Supplier Corrective Action Report is the preferred format for supplier corrective action responses.
- B. Should that corrective action be ineffective, untimely, or performance not be restored, PUT may exercise all rights available under contracts or purchase orders.

- 8.9. **Packaging and Labeling**
Unless otherwise specifically defined, packaging and labeling are the responsibility of the supplier and shall be adequate to prevent damage, corrosion, or deterioration during shipment. Packaging shall conform to all Packaging and Labeling Specifications documented on the purchase order, product drawings or material specifications.
- 8.10. **Handling and Storage Requirements**
The supplier is responsible for the proper handling and storage of all raw material and components supplied or consigned to PUT. Special handling, packaging, and storage requirements will be documented on the purchase order.
- 8.11. **Unit Count Accuracy**
Unless otherwise specified, unit count accuracy of supplied materials shall be within the following limits:
1. Reeled Material +1.0%/-0.0%
 2. Weigh Count +0.2%/-0.0%
 3. Machine Count Bulk +0.5%/-0.0%
 4. (Tube/Tray) Packaging +/-0.0%
 5. Base Metals +/- 2% gross ± 1lb/1000 net
- 8.12. **Quality Records**
The supplier is responsible for maintaining the following records for each part number manufactured or provided, as applicable:
- A. Inspection records
 1. First article inspection results
 2. Set up inspection records
 3. In process inspection records
 4. Final inspection records
 5. Dock audit results
 - B. Certificates of analysis
 - C. Certificates of compliance
 - D. Laboratory analysis test results
 - E. SPC data (if applicable)
 - F. Purchase orders
 - G. Change orders
 - H. Approved deviations
 - I. Calibration records
 - J. Nonconforming material records
 - K. Corrective action responses
 - L. Shipping records
 - M. PPAP (if applicable)
 - N. Environmental Record
 - O. IMDS registration number (if applicable)
- These records shall be maintained for a minimum of ten years
- 8.13. **Document Control**
The Supplier is responsible to maintain control of all drawings, specifications, and documents provided by PUT. All purchase orders shall be produced to the latest revision as specified on the PO. Upon receipt of a new revision the supplier shall review the changes and determine their ability to produce the product to the current revision. Product produced prior to the revision shall be reviewed for conformance. If the product does not conform the Supplier has the responsibility to notify PUT Purchasing for disposition.

9. PERFORMANCE REQUIREMENTS/MEASUREMENTS

9.1. Performance Goals for Suppliers

Performance goals for suppliers are:

- A. Quality 25 points = % of lots received correctly
- B. Delivery 40 points = 100% On Time, (0 days late, no more than 5 calendar days early)
- C. Service 5 points = Quote, order response time
- D. NCMR 30 points = -10 points for each NCMR written during manufacturing
- E. A supplier's performance rating will be computed by PUT and quarterly reported to the supplier. Suppliers are to maintain a rating an 85 minimum score. Scores between 70 and 85 will require a written corrective action. Scores under 70 will require a documented improvement meeting. Suppliers are subject to removal from the approved supplier list after 2 consecutive quarters under 70.

10. SUPPLIER DEVELOPMENT

Supplier development may be achieved through a variety of audits, reviews and Six Sigma projects. It can be brought about through Supplier Development meetings (Appendix A), workshops, surveys, corrective/preventive actions, training, or one on one meetings. These development actions may be implemented with suppliers on a selected basis.

10.1. Supplier Managed Inventory

Early in the Supplier Development process, the supplier may be asked to maintain a predetermined inventory level to off set demand fluctuations or manufacturing process constraints. The inventory is carried and managed at the supplier location based on the PUT forecast provided to the supplier. The details of the managed inventory process is agreed and documented with individual suppliers.

10.2. Supplier Consigned Inventory

Certain suppliers from whom PUT purchases high-volume parts with consistent quality may be asked to participate in true Supplier Consigned Inventory for those parts. PUT will generate special Consignment Purchase Orders to the selected Suppliers and those Suppliers will be responsible to keep those levels between a specified minimum and maximum. The supplier will be responsible for all physical inventories needing to be preformed on site. Using "Purchase Orders", material will then be withdrawn from the consignment inventory locations only when required, and will be placed into PUT -owned inventory for subsequent application to Factory Orders. It is this consumption event that will trigger the beginning of counting of days when payment is due in the payment cycle. The resultant process differs from the normal inventory and payment cycle, in that PUT will have the constant availability of the consignment stocks for use, but will not pay for it until after it is actually pulled for a Work Order.

10.3. Supplier Training & Development Plan

- A. The Training and Development planning process is a critical activity for every organization. An effective training and development program can help to fulfill the organizational goals and objectives, improve productivity and provide quality products and services. This training and development plan should be reviewed during the PUT Supplier feedback meetings to track and report progress to goals.
- B. Six Sigma projects to be applied by suppliers on a case-by-case basis and the documentary evidence of the programs reviewed at the supplier feedback meetings.

APPENDIX A

Production Group Automotive

1. INTRODUCTION

There are specific requirements that suppliers to PUT, must meet in order to supply the Production Group automotive work. This appendix outlines these requirements and where there is a conflict in this appendix to other sections within this document then this appendix B takes precedent. The Production Group of PUT is certified to ISO/TS 16949 which is the Technical Specification outlining the particular requirements for the application of ISO 9001 for automotive production and relevant service part organizations. Communication between PUT and the supply base is essential for the development of a successful long-term relationship.

2. AUTOMOTIVE QUALITY SYSTEM REQUIREMENTS

2.1. Quality System Requirements

Suppliers to PUT Automotive are required, as a minimum to be 3rd party registered to ISO 9001 by an accredited 3rd party certification body. The scope of the registration must include the product, materials or services supplied to PUT Automotive. Suppliers also agree to participate in a supplier development program, which has the goal of achieving conformity to the ISO/TS 16949 technical specification. Suppliers are expected to have readily available, and be fully familiar with the requirements of, the current revision of the following Automotive Industry Action Group (AIAG) publications:

- a) Advanced Product Quality and Control Plan Manual (APQP)
- b) Statistical Process Control Manual (SPC)
- c) Measurement System Analysis (MSA)
- d) Failure Mode and Effects Analysis Manual (FMEA)
- e) Production Part Approval Process Manual (PPAP)

The supplier shall notify PUT buyer within 5 working days should their ISO 9001 or TS16949 certificate be suspended or withdrawn.

Suppliers of Plating, Coatings, and Heat Treating processes shall be compliant to the applicable AIAG CQI documents.

3. ADVANCED QUALITY – PRODUCT PROCESS LAUNCH

3.1. Advanced Product Quality Planning (APQP)

Suppliers are expected to implement Advanced Product Quality Planning (APQP) activities to communicate and ensure timely, high-quality product development. APQP must be consistent with the “Advanced Product Quality Planning and Control Plan – APQP” requirements published by AIAG. The supplier shall carry out the relevant APQP activities on all new materials, products and components supplied to PUT Automotive. The supplier is responsible for appointing an individual to organize and manage the APQP process. The supplier may be required to participate in the PUT product development process and attend APQP Team meetings. The supplier is expected to attend any meetings requested of them by the buyer/ Supplier Quality Engineer. Suppliers to PUT Automotive shall have personnel trained on FMEA techniques and Statistical process control. It is expected that the current version of Statistical Process Control (SPC) and Failure Mode and Effects Analysis (FMEA) manuals published by AIAG will be used as guidance when implementing these techniques.

3.2. Measurement System Analysis (MSA)

The analysis of measuring systems is an integral part of the APQP process. PUT expects suppliers to conduct measuring systems analysis evaluation on all measuring and test equipment referenced on the Control Plan. The process is to be conducted per the latest version of Measurement System Analysis (MSA) manual published by the AIAG

3.3. Production Part Approval Process (PPAP)

The submission and approval of production parts (initial sample approval) is an integral part of the automotive supply chain. Production part approval is always required prior to the first production shipment of goods. The supplier shall follow the AIAG published PPAP procedure for each PPAP submission and all PPAP submissions are to be to AIAG Level 3 requirements unless otherwise authorized in writing by the PUT buyer. The actual PPAP documentation shall be submitted following the sections defined in the AIAG published PPAP manual. All reports, accreditations, and certifications must be less than one year old at the time of PPAP submission. The AIAG published PPAP manual defines the circumstances, which a PPAP is required to be submitted, but if the supplier requires any clarification the PUT buyer is to be contacted prior to the shipment of production parts. PPAPs submitted to PUT' customers are required to contain data which is less than 1 year old. Some of this data is provided by PUT' suppliers. The supplier is therefore expected upon request to update any previously submitted PPAP information.

3.4. External Laboratory Accreditation

Any testing or measurement performed by a laboratory external to the Suppliers' organization shall be accredited through a 3rd party firm to ISO/IEC 17025 or national equivalent.

4. PRODUCTION REQUIREMENTS

4.1. Notification/Approval of Product or Process Changes

Once the PPAP has been reviewed and approved the supplier is not authorized to make any changes to the product, raw material, the manufacturing process or the manufacturing location without the written permission of the PUT buyer. The process to request a change is initiated by the completion of PUT form. This form is available from the buyer. The supplier shall notify PUT in writing of all proposed changes prior to the implementation of any change. The planning and strategy of any agreed changes will be done in strict co-ordination with the PUT buyer. PPAP will be required to be submitted per AIAG published PPAP manual.

4.2. Non-conformance

If a non-conformance of purchased products/materials or services is discovered at PUT, PUT' Customer or agent of PUT the details of the non-conformance will be formally communicated by a NCMR. To expedite the communication process the initial notification may be by telephone or email. The supplier is responsible for immediately initiating containment of any suspect product within their facility or in the supply pipeline. Suppliers are required to communicate details of containment action to the PUT buyer or Supplier Quality Engineer within 24 hours of receiving the initial non-conformance notification. The communication shall be via The Supplier Corrective Action Report.

4.3. Containment

Suppliers are expected to implement effective containment to isolate non-conforming product/material or services. The supplier is responsible for determining the necessary actions to establish an effective containment program. PUT reserves the right to mandate, at the supplier's expense, increased levels of containment based on the nature or severity of the non-conformance.

4.3.1. Level I Containment

Level I containment is a redundant inspection process, away from the normal processing area, performed by the supplier to ensure that the defect(s) being inspected for are contained at the supplier's facility. Letter from PUT that level I will notify the supplier containment has been mandated. The letter will document the reasons for the Level I containment, the reporting expectations from the supplier and the criteria the supplier will be required to meet to exit the level I containment. PUT Buyer will follow up by telephone with the supplier to ensure that the letter mandating Level 1 containment has been received by the supplier.

4.3.2. Level II Containment

Level II containment is the same as Level I except that a third party representing the interests with respect to the containment of PUT performs the redundant inspection. The third party is selected by the supplier, approved by PUT and paid for by the supplier. Letter from PUT will notify the supplier that level II containment has been mandated. The letter will document the reasons for the Level II containment, the reporting expectations from the supplier and the criteria the supplier will be required to meet to exit the level II containment. PUT buyer will follow up by telephone with the supplier to ensure that the letter mandating Level II containment has been received by the supplier.

4.4. Corrective Action

When an incidence of non-conformance is reported to a supplier the initial step is containment. A concurrent action must be to establish the root cause of the issue and implement corrective action. PUT expects a supplier to investigate the root cause(s) and respond to the PUT Supplier Quality personnel with a corrective action plan within 14 business days. The details of the investigation and the corrective action plan shall be documented using The Supplier Corrective Action Form, or Customer specified Form.

5. PERFORMANCE MEASURES

5.1. Supplier Performance

PUT monitors the performance of their suppliers and issues a monthly/quarterly scorecard. The supplier rating is based on Delivery and Quality metrics (NCMR'S, Service and Support). The Delivery section of the supplier performance rating is calculated on performance to Scheduled deliveries. The Quality section of the supplier performance rating is calculated based on dollar amount rejected to total amount received.

5.2 Quality Meetings

Suppliers who do not meet PUT' performance expectations may be selected to attend a Quality Meeting. Meetings are designed to drive suppliers to identify the systemic/management issues that need to be addressed in order to put effective closure to an issue(s). The planned outcome of the meeting is a mutually, agreed action plan with realistic goals and targets against which the supplier is monitored to effective closure of the issue. The personnel required to attend a meeting will be decided by PUT on a case-by-case basis.

APPENDIX B

1. SPECIFIC QUALITY SYSTEM REQUIREMENTS FOR SUPPLIERS OF TOOLING

In place of section 8 of this manual, Suppliers providing tools (dies, molds and their spares) are not required to be certified to ISO 9001 but are expected to implement a basic documented quality system for the scope of their manufacturing. Penn United procedure SPD-0003 (Tooling Supplier Manufacturing Guidelines and Tolerances) applies to all tooling suppliers. This requirement is necessary to promote consistency and conformance of this critical commodity. The quality system shall address, as a minimum, the following elements:

1.1. Basic Elements

Suppliers must show that documentation exists to support the following elements (i.e. A documented system exists that considers each element.)

Scope of Manufacturing	Element	Explanation
Spares and Die Components	1. Revision/Contract Control	Supplier shall have a process to verify current revision to Purchase Order
	2. Inspection	Supplier must provide a written inspection report for all 4 place and tighter decimal dimensions using calibrated equipment. (i.e.: .xxxx, .xxxxx) PS applies for manufacturing guidelines and tolerances.
	3. Material Traceability	Supplier must maintain traceability and provide certificate of analysis for all materials when required by the Purchase Order.
Tool Build (only)	4. Process for quoting	All of the above plus Supplier should have a process in place for - Lead time - Feasibility review - Changes to the design must be approved by PUT engineer and communicated to purchasing.
If designed by Supplier	5. Concept review Design review Final review	Concept – prior to design, to discuss design, gating, shrinkage, etc. Each of the Three reviews needs PUT engineer's approval before proceeding. If PUT engineer rejects changes, documented action to be submitted to purchasing.
	6. Tracking scheduling and routing process	Process for scheduling jobs through the shop and documented manufacturing steps to be followed for each detail. Die build timeline tracking documented and provided to purchasing(as specified by PUT) to detect any delays in meeting the schedule.
	7. Change control process	System for maintaining latest drawings when changes are made. Manufacturing deviations must be documented and approved by PUT engineer.
Build and Condition	8. Part Approval Process	Above requirements (1-7) plus following requirements: First Article Inspection Report including 100% of dimensions Gage R&R and Capability study on critical characteristics. Sample production parts PSW (Part submission warrant) if required
Build, Condition And Run	9 Production Process	Must meet all requirements of this manual.