ARROWHEAD PRODUCTS

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HISTORY OF REVISION

Rev.	Description	Pages Affected	Approval Date
	All previous revisions are on file.		
AJ	Para 2.0 – Changed "The Supplier Performance Rating System is calculated quarterly…" to "calculated monthly". Complete revision of Para. 4.2.3 Was: Critical process suppliers include providers of machining, calibration services, as well as any other processes usually performed in-house by Arrowhead Products (e.g. welding, penetrant inspection). Is: Critical Suppliers are determined based on dollars spent annually, commodity, and business impact. Critical Suppliers are documented on form ARPRO 1131. The form is reviewed on an annual basis for accuracy. Revised Para. 4.3.1.2 Complete revision of Critical Suppliers audit requirements. Added Para. 4.3.1.3.4: Product Audits for the FAA Repair Station shall be performed by the Repair Station Accountable Manager or Delegate using ARPRO 1138. Revised Para. 4.3.1.3.1 to exclude the reference to the Supplier Audit Schedule. Complete revision of Para. 5.1 Was: Performance monitoring shall only apply to suppliers who have annual total purchase order values of $5,000 or more. This monitoring will be conducted quarterly by the Quality Department and shall review the supplier's quality and delivery performance for a 12 month rolling period Is: Performance monitoring will be calculated monthly and apply to all active suppliers. Performance scorecards (Quality & Delivery) will be sent to Critical Suppliers (ARPRO 1131) monthly based on a 12 month rolling period. Revised Para. 5.2.1.2 Revised … "reporting cycles"… to quarters Revised Para. 8.2 – …"Delivery and shall only be maintained for critical suppliers." Revised Para. 12.0 Supplier Performance Reporting Was: Performance reports will be generated for active suppliers whose annual purchase order totals are $5000 or more. Suppliers will be notified of their performance rating in both Quality and Delivery, and recovery plans or Corrective Action Plans will be initiated as required. Is: Performance reports will be generated monthly for critical suppliers. Suppliers will be notified of their performance rating in both Quality and Delivery, and recovery plans or Corrective Action Plans will be initiated as required.	3 4 5 6 6 7 7 12	10/1/14
AK	Added to Scope Para. 2.0 For service provider suppliers, performance shall be monitored based on internal audit and surveillances, witness activities, and documentation reviews of services provided either at AP or at the supplier's facility. Added Reference document ARPRO 967 to Para. 3.0 Added Para. 4.2.5 Service providers are considered calibration, and testing suppliers that provide services for tools, gages, ovens, product examination and/or testing Added Para. 4.3.1 Witness or performing of Testing, Calibrations, or Inspections.	3 4 4	10-30-2014

HISTORY OF REVISION

Rev.	Description	Pages Affected	Approval Date
AK	Added Para. 4.3.1.2 Suppliers Audits Service Providers, calibration and testing suppliers shall be scheduled for a Process Audit based upon supplier performance assessed during surveillance activities, internal audits and documentation reviews. Added Para. 4.3.1.2.6 Additional specialized checklist(s) can be used in addition to the process audit checklist ARPRO 1022 to document audits and surveillance activities of service providers. Added Para. 4.4.5 (7) Non compliance to purchase order requirements during surveillance reviews (testing, inspection or calibration) Added Para. 5.1.3 Service providers will be monitored in accordance with paragraph 4.3.1.2. to ensure continued compliance to the purchase order flow down requirements and successfully pass all required witness and surveillance activities imposed. Added verbiage to Para. 5.2.1.1 - If deemed necessary based on impact to production at Arrowhead Products or significant underperformance (15% under threshold) of either Quality or Delivery a corrective action may be issued. Added 7.8 Calibration Services 7.8.1Tools, gages, ovens, and additional manufacturing equipment requiring calibration shall be controlled by a purchasing requisition and/or MRP system that states the quality requirements. All purchase orders/blanket orders shall be reviewed by a Quality Representative and the process owner (Heat Treat Manufacturing Engineer, NDT Level III, etc.) prior to the order being placed. 7.8.2 Quality clauses will be flowed down in accordance with ARPRO 967. Revised Para. 9.1 … audit requirements/findings Added Para. 9.2 If a corrective action request is not responded to, is deemed to be ineffective, is a repetitive finding the Supplier will be evaluated to the Corrective Action Board and/or the Supplier Quality Engineer to determine continued approval status. Added to Para. 12.0 Supplier Performance Reporting Performance reports for service providers will be generated quarterly. Suppliers will be notified of any nonconformance and recovery plans or Corrective Action Plans will be initiated as required.	5 6 7 7 7 11 12 12 12	10-30-14

1.0 PURPOSE

To establish a method of evaluating the capabilities and performance of Arrowhead Products' suppliers based on the process prescribed within this document.

2.0 SCOPE

This instruction will apply to suppliers that provide materials and/or services for production and/or inspection, or deliverable contract items.

Supplies and/or services related to plant operation and facility maintenance are exempt from this procedure.

The Supplier Performance Rating System is calculated monthly based on product acceptance and product rejection data. This data is used as a basis for establishing the frequency of subcontractor audits, product inspections, and for determining whether to offer future bid opportunities.

For service provider suppliers, performance shall be monitored based on internal audit and surveillances, witness activities, and documentation reviews of services provided either at AP or at the supplier's facility.

3.0 REFERENCE DOCUMENTS

SOP-06-011	Purchasing Manual
QCI-13-077	Control of Nonconforming Articles and Materials, with Provision for MR Action
QCI-14-078	Corrective and Preventative Action
QCI-15-021	Control of Weld Wire Spool or Cut Lengths
QS-210	Control of Weld Filler Material for Space Programs
QCI-15-012	Age Sensitive Material and Material Storage in Controlled Environments
QCI-20-069	Sampling Inspection
QCI-02-004	Risk Management
SOP-2-107	Engineering Design and Development Process
MEP1000-123	Tooling Implementation Procedure
ARPRO 967	PO Appendix-Supplier Product Assurance Requirements

4.0 PROCEDURE

4.1 REQUIREMENTS

4.1.1 Only suppliers active on the Arrowhead Products Approved Supplier List will be used for the procurement of goods, materials, products, or services related to the manufacture, production, or inspection of deliverable hardware.

4.1.2 Requirements for use of approved suppliers shall be flowed down through the Arrowhead Products Purchase Order.

4.1.3 Inquiries regarding approved sources will be referred to QA for resolution.

4.1.4 Arrowhead shall have the ultimate responsibility for all suppliers as well as any sub-tier suppliers that perform work on Arrowhead products. Correction of nonconformance resulting from sub-tier special processes will be coordinated with the first-tier supplier unless otherwise deemed necessary by Arrowhead.

4.2 SUPPLIER CLASSIFICATIONS

4.2.1 NEW SUPPLIERS

New suppliers shall complete and submit the Supplier Questionnaire, form ARPRO 1000, and the Acknowledgement of Quality Requirements form prior to placement of order.

When notified of the need to add a new supplier to the Approved Supplier List, Quality shall evaluate the Supplier's qualifications and/or ability to meet Arrowhead Products quality requirements and determine when/if an onsite audit shall be required.

If an immediate purchase is necessary, a "Request for Authorization to Use", form ARPRO1024, shall be completed and require the approval of Quality Assurance Management or Management Designee prior to order placement.

4.2.2 SPECIAL PROCESS SUPPLIERS

Special process suppliers include providers of thermal treatment, welding or brazing, surface treatment or coating, inspection and test (NDT) services, electrical discharge machining (EDM) and precision cleaning.

4.2.3 CRITICAL SUPPLIERS

Critical Suppliers are determined based on dollars spent annually, commodity, and business impact. Critical Suppliers are documented on form ARPRO 1131. The form is reviewed on an annual basis for accuracy.

4.2.4 TOOLING SUPPLIERS

Tooling Suppliers include providers of fabrication of tools and other process services pertaining to tooling used for our products.

4.2.5 SERVICE PROVIDER SUPPLIERS

Service providers are considered calibration, and testing suppliers that provide services for tools, gages, ovens, product examination and/or testing.

4.3 SUPPLIER EVALUATIONS

4.3.1 METHOD OF EVALUATION

Evaluation of a Supplier may be performed by one or more of the following methods, as determined by Quality Engineering:

• PROCESS AUDIT CHECKLIST	Quality Audit Checklist, Form ARPRO 1022
• PRODUCT AUDIT CHECKLIST	Quality Audit Checklist, Form ARPRO 1108
• QUESTIONNAIRE	Supplier Questionnaire, Form ARPRO 1000
• QUALITY PERFORMANCE	Supplier Performance Percentage, Witness or performing of Testing, Calibrations, or Inspections
• LIMITED APPROVAL	See Paragraph 4.2.1

- SUPPLIER CAPACITY ASSESMENT ARPRO 1083
- SUPPLIER OBSOLESCENCE SURVEY ARPRO 1128

4.3.1.1 **SUPPLIER QUESTIONNAIRE**

4.3.1.1.1 Suppliers may be approved after evaluation and approval of a complete Supplier Questionnaire, form ARPRO 1000.

4.3.1.1.2 All Active Suppliers are required to complete a new Supplier Questionnaire every 3 years.

4.3.1.1.3 Quality Assurance will maintain the Active Supplier records and will be responsible for requesting the completion of a Supplier Questionnaire every three years. Failure of a Supplier to complete and return the Questionnaire and related documentation may result in that Supplier's removal from the Approved Supplier List.

4.3.1.2 **SUPPLIER AUDITS**

Special Process Suppliers shall be scheduled for Process Audits and/or Product Audits based upon supplier performance and/or customer requirements.

Critical Suppliers shall be scheduled for an annual Process Audit and/or Product Audit if their 12 month rolling performance falls below the stated quality 99.55% and delivery 96% thresholds.

Tooling Suppliers shall be scheduled for Process Audits based on complexity of the tool, supplier performance and first time use.

Service Providers, calibration and testing suppliers shall be scheduled for a Process Audit based upon supplier performance assessed during surveillance activities, internal audits and documentation reviews.

Quality Assurance shall maintain the Supplier Audit Schedule and identify which suppliers require Process Audits, and/or require Product Audits.

Completed Product and/or Process Audit checklists and supporting documentation, completed Supplier Questionnaires and other related information will be maintained in the Supplier Files by the Supplier Quality Focal.

4.3.1.2.1 **PROCESS AUDITS**

4.3.1.2.2 Audit activities shall be led by a quality auditor. The quality auditor and Purchasing, as applicable shall coordinate the formal survey arrangements with the Supplier to explain the purpose of the survey and schedule a date and time.

4.3.1.2.3 The quality auditor shall complete a Quality Audit Checklist, form ARPRO 1022, during the Process Audit. Upon conclusion of the Audit the auditor shall summarize the findings and attach all applicable certifications such as ISO, NADCAP etc. A debriefing meeting shall be conducted with the Supplier Management to review results of the audit.

4.3.1.2.4 Process Audits are required for select suppliers that have been identified as D-T-S (dock-to-stock) suppliers when contractually required by the customer. Process audits may be performed if required based upon Supplier Performance.

4.3.1.2.5 When required, Process Audits will be performed at the Supplier's facility. However, when an on-site audit is not required, Quality Audit Checklist Form ARPRO 1022 may be used to perform a

Desktop audit and review of the Supplier's quality manual(s), procedures, objective evidence and any other documentation requested by the Auditor and provided by the supplier.

4.3.1.2.6 Additional specialized checklist(s) can be used in addition to the process audit checklist ARPRO 1022 to document audits and surveillance activities of service providers.

4.3.1.3 **PRODUCT AUDITS**

4.3.1.3.1 Special Process Suppliers and Critical Suppliers shall be scheduled for a Product Audit as needed based upon supplier performance and/or customer requirements.

4.3.1.3.2 Product Audits shall be performed using ARPRO 1108, Supplier Product Audit Form.

4.3.1.3.3 Product Audits may be performed on-site at the Supplier's facility or at Arrowhead Products upon receipt of delivered product, or as specified by customer requirements.

4.3.1.3.4 Product Audits for the FAA Repair Station shall be performed by the Repair Station Accountable Manager or Delegate using ARPRO 1138.

4.4 **APPROVAL STATUS**

Approval status of the supplier shall be identified on the Approved Supplier List (ASL) as follows:

- Full Approval
- Limited Approval (Based on evaluation of delivered product)
- Customer Approved/Directed Source
- Disapproved

4.4.1 **APPROVED SUPPLIER LIST**

A list of approved suppliers shall be available on the AP intranet. Quality Assurance shall maintain the list, which shall specify the approval status and the scope of approval for each supplier.

4.4.2 **FULL APPROVAL**

Suppliers will remain at full approval when they have demonstrated satisfactory performance based upon their performance rating, on-site audit results and/or questionnaire results.

4.4.3 **LIMITED APPROVAL**

Limited Approval is granted to a prospective supplier for which there has been no previous performance history. This is granted to suppliers when justification is provided based on their ability to meet subcontract requirements through a Supplier Questionnaire or an On-Site Audit. Upon receipt of product or service, the supplier's quality rating may reflect a full approval status if the entire lot/batch is accepted without rejection. It may also be used for suppliers that have capabilities to perform various services however are only approved to a specific service.

4.4.4 **CUSTOMER APPROVED/DIRECTED SOURCE**

Customer Approved/Directed Source will be placed on Arrowhead Product's approved supplier listing (ASL) upon confirmation of customer approval of the supplier via customer portal or formal letter approval.

4.4.5 **DISAPPROVED**

A disapproval status may be allocated to suppliers in the following instances:

1) Failure to maintain a 99.55% quality rating based on approval/rejection data
2) Failure to maintain a 96% delivery rating based upon PO line item due dates
3) Customer Alerts/Bulletins concerning the quality of the supplier's product (i.e. loss of accreditations (Nadcap approval), consistent noncompliance etc.)
4) Failure to respond to a corrective action by the specified due date/failure to implement a corrective action for nonconforming conditions
5) Failure to respond to the Supplier Questionnaire
6) Failure to maintain product or service supporting Arrowhead Products
7) Non compliance to purchase order requirements during surveillance reviews (testing, inspection or calibration)
8) Loss of business

4.4.5.1 Disapproved suppliers shall be locked out of the system by Quality Assurance, which will prevent a purchase order from being generated. The supplier status shall only be altered if a "Request for Authorization to Use" form ARPRO1024, is approved by Quality Assurance. This form shall be submitted via e-mail to the quality representative who maintains supplier/procurement activities.

4.4.6 **INACTIVE SUPPLIERS**

Suppliers who have not delivered any product for two years will have their status adjusted to Deactivated on the Approved Supplier Listing, regardless of the supplier's quality rating. Inactive suppliers must be reapproved before any orders can be placed. Request to re-activate a supplier must be done through e-mail by the Purchasing organization by submitting a "Request for Authorization to Use" form ARPRO1024 and sent to the Quality Procurement Representative for authorization.

5.0 SUPPLIER PERFORMANCE MONITORING

5.1 Performance monitoring will be calculated monthly and apply to all active suppliers. Performance scorecards (Quality & Delivery) will be sent to Critical Suppliers (ARPRO 1131) monthly based on a 12 month rolling period.

5.1.1 All suppliers shall maintain a quality performance threshold of 99.55%.

5.1.1.1 The Supplier's quality performance will be monitored and calculated using acceptance versus rejection data based on the number of pieces received in total.

5.1.2 All suppliers shall maintain a delivery rating threshold of 96%.

5.1.3 Service providers will be monitored in accordance with paragraph 4.3.1.2. to ensure continued compliance to the purchase order flow down requirements and successfully pass all required witness and surveillance activities imposed.

5.2 When a supplier falls below one or both of the stated performance thresholds, the required actions are as follows:

5.2.1.1 First time below performance rating, a warning letter shall be issued advising the supplier of their failure to meet the performance requirements. If deemed necessary based on impact to production at Arrowhead Products or significant underperformance (15% under threshold) of either Quality or Delivery a corrective action may be issued.

5.2.1.2 If the performance has not improved within (2) quarters of the warning letter being sent, a Corrective Action Request may be issued.

5.2.1.3 If Corrective Action has been implemented and is ineffective after (2) reporting cycles, a Process Audit may be scheduled or a Recovery Plan may be developed with the Supplier.

5.3 AP is committed to working with their suppliers in order to prevent disapproval and removal from our Approved Supplier Listing. This effort will be done by communicating to the supplier (by telecom, on site meetings/re-audits or formal documented communication) to discuss problems they are experiencing which have prevented them from meeting the approval criteria. These communications and actions that arise will be documented and maintained by Quality Assurance. If improvement cannot be achieved and problems persist then the supplier will be deactivated from our Approved Supplier List and from our ordering system.

6.0 PURCHASE ORDER REVIEW

6.1 Arrowhead Quality Assurance shall verify that applicable design and technical requirements are included with the item description and part number and/or item number.

6.2 Using the secured quality field, QA shall enter the applicable quality requirements into BPCS. The Quality Department shall indicate the applicable clauses from the Supplier Purchase Order Requirements (ARPRO 967).

6.3 Arrowhead purchase orders for materials, parts and services used for deliverable product shall be reviewed by Quality Assurance prior to order placement as required per SOP-06-011. The review shall assure the use of approved suppliers listed on Arrowhead Products Approved Supplier Listing or customer approved suppliers as contractually required, adequate and current description of engineering/technical requirements, and that the quality requirements applicable to the order have been imposed. For outside processing operations, the P.O. shall reference the Off Site Work Order (OWO), which will be available to Q.A. during the review of the P.O.Note: Specific customer flow down requirements for materials and other services shall be noted on the Traveling Requisition and as specified in ARPRO 967.

6.4 Purchased items that will be part of shippable hardware shall be processed utilizing a Traveling Requisition as opposed to a Purchase Requisition. The Traveling Requisition shall specify a “production based” item number, description and relative QCI’s that apply in accordance with customer specifications. All Traveling Requisitions require QA review before procurement is engaged and Purchase Orders are generated. Traveling Requisitions are considered permanent records; prepared, maintained and stored at the division level by assigned procurement staff.

6.5 The Purchase Order shall be signed and dated by a Quality Assurance representative, as required per SOP-06-011. Note: Only the Purchasing Copy of the Purchase Order shall require Q.A. signature and date.

6.6 Purchase Order changes affecting technical or quality requirements shall be approved by QA.

6.7 The Supplier Product Assurance Requirements, form ARPRO 967, is available to the suppliers via Internet access and can be found at the Arrowhead Products website, http://www.arrowheadproducts.net.

6.8 Purchasing documents that apply to a Customer/Government Order shall be made available for review by Government/Customer Representatives as required.

6.9 Customer/Government source inspection may be imposed on the Arrowhead Products P.O. by written request from an authorized customer/government representative.

6.10 Notification to the FAA shall be given for any major inspections conducted by a Arrowhead supplier (or supplier sub-tiers) in lieu of an inspection at Arrowhead, any drop ship authority granted by Arrowhead, any delegation of MRB authority by Arrowhead and the intended use of foreign suppliers by Arrowhead or its suppliers or supplier sub-tiers.

6.11 Purchase order for UTC- On subcontracted work for UTC Member-designed products the purchase order must display the following statement that the articles are for “UTC member end use” and controlled per the applicable purchase order requirements.

6.12 Tooling purchase order review shall be the responsibility of Manufacturing Engineering and processed in accordance with MEP1000-123.

7.0 INSPECTION OF PURCHASED MATERIALS

7.1 INITIAL RECEIVING INSPECTION

7.1.1 All raw materials, purchased parts, and purchased outside services to be consumed in deliverable product shall be inspected upon receipt. Purchased materials and associated paperwork shall be forwarded by the Receiving Department to Receiving Inspection.

7.1.2 Inspection shall verify that procurement is from an approved source as noted on the ASL (Approved Supplier Listing).

7.1.3 The shipment shall be verified for fulfillment of all Supplier Product Assurance Requirements specified by P.O. or Offsite Work Order (OWO) for outside processing, including proper certifications, test reports, data sheets, first articles inspection reports, identification, etc.

7.1.4 Shipments with incomplete/missing documentation or count discrepancies shall be withheld, and resolution coordinated with Purchasing.

7.1.5 Source inspection acceptance will be noted on the shipper by an Arrowhead Products inspection acceptance stamp and/or a Q.E. stamp on the shipper. Receiving Inspection shall verify source inspection acceptance when required by P.O. and/or Offsite Work Order (OWO).

7.1.6 X-Rays accompanying shipments of casting, tubing, welded product, etc. shall be forwarded to NDT for acceptance on a Request for NDT form (ARPRO 942A)

7.1.7 Sampling of product for receiving inspection shall be in accordance with QCI-20-069 when sampling is permitted by the contract/customer.

7.1.8 Consumable materials that do not require Receiving Inspection activities shall be routed to their respective areas for distribution and use. Any certifications received on these types of materials shall be routed to the Q.A. Office

7.2 INSPECTION OF RAW MATERIALS-METAL (SHEET, PLATE, TUBES, COILS, BAR STOCK)

7.2.1 Incoming metallic raw materials shall be logged in by heat number, material type, specification, date received, purchase order, material size and supplier.

7.2.2 Receiving Inspection shall verify product size, thickness, condition, certification/test report and identification against P.O./specification requirements.

7.2.3 Certifications and material test reports shall be reviewed by Receiving Inspection personnel for acceptance. An acceptance stamp indicating “Material Spec Compliance Verified By: (Inspectors Stamp), Date (Date of Acceptance) “will be affixed to the certification/test reports.

7.2.4 Physical samples of every heat of coil stock, or every fifth heat number of sheet, plate, bar or tube stock received shall be forwarded to the M&P Laboratory on a request for laboratory services form (ARPRO 949) for testing in accordance with specification requirements (including tensile, elongation, hardness, grain size examination, etc.).Every fifth heat number shall also be forwarded to the M & P laboratory or an outside lab for Chemical Analysis testing in accordance with the specification requirements. It is the responsibility of the Receiving Inspector to coordinate, monitor and request follow-up of the materials submitted for Chemical Analysis.

7.2.5 Accepted material shall be identified with an A/P Acceptance Tag (ARPRO1005) listing material, thickness, specification number, P.O. number, heat number and inspectors stamp and date.

7.2.6 Material certifications shall be filed with the Receiver Ticket. Receiver tickets are maintained on the network, in receiving inspection or in the QA Archives.

7.3 **INSPECTION OF RAW MATERIALS-WELD WIRE**

7.3.1 Weld wire shall be inspected in accordance with QCI-15-021 or QS-210 for space programs.

7.4 **INSPECTION OF RAW MATERIALS-TUBING AND TUBE BENDS**

7.4.1 Verify quantity, material type and thickness, diameter, straightness, length and certifications in accordance with the P.O. requirements.

7.4.2 Verify processing in accordance with drawing, specification or P.O. requirements.

7.4.3 Tube bends - verify dimensional requirements (bend radii and roundness) in trim shell or by open set up.

7.4.4 Verify an accepted first article inspection report to the current drawing revision is on file. A separate first article is required for each supplier.

7.4.5 Tube bends- Verify acceptable wrinkle, flatness, and surface condition in accordance with APPS-1-M or applicable specification. Verify minimum material thickness requirements at point of maximum thinning.

7.4.6 Accepted material shall be identified by an A/P Acceptance Tag (ARPRO 1005) listing material, thickness, specification number, P.O. number, heat number and inspectors stamp and date.

7.4.7 When tubing is cut, any useable tube remnants shall be identified using a permanent marking pen. The employee doing the tube cutting shall mark the useable tube remnants with the following information:

Material Type
Material Thickness
Tube Diameter
Heat Lot Number
Purchase Order Number
Item Number

Note: Some of this information may already be marked on the tube as received from the supplier. In this case it is not necessary to rewrite this information on the tube.

After marking the useable tube remnants, they shall be returned with the A/P Acceptance Tag (ARPRO 1005) to the location they were originally drawn from. Smaller tube remnants may have a new inventory location assigned if necessary and entered into the system.

7.5 **INSPECTION OF RAW MATERIALS-COMPOSITES**

7.5.1 Inspect in accordance with the requirements of QCI-15-012

7.6 **INSPECTION OF MECHANICAL PARTS-CASTINGS, FORGINGS, STANDARD & MACHINED/FORMED PARTS TO PRINT**

7.6.1 Sample in accordance with QCI-20-069 for verification of dimensional characteristics. Any parts that are beyond the measurement capability of receiving inspection shall be forwarded to an appropriate area for dimensional measurements (tooling, final, etc).

7.6.2 Verify an accepted first article inspection report to the current drawing revision is on file. A separate first article is required for each supplier.

7.6.3 Drop Hammer Halves shall be dimensionally inspected per the drawing requirements and/or APPS-5-M, figure II. A maximum of 25% parent metal thinning is permitted. Verify burn down radii 100%. Hammer halves shall be supplied in the fully annealed condition (except titanium), and shall be clean and scale free.

7.7 **OUTSIDE PROCESSES**

7.7.1 Items requiring outside processes shall be controlled by an Inspection Traveler and Process Sheet (ITPS).

7.7.2 The specification revisions must be checked prior to creating offsite work orders for outside processing. The product shall be forwarded to Shipping with the drawing and necessary P.O. information on an Offsite Work Order Form.

7.7.3 The Inspection Traveler and Process Sheet (ITPS) shall be held at Receiving Inspection while parts are being processed outside.

7.7.4 Upon receipt Receiving Inspection must verify that the revisions of the Receiving Inspection Report, Offsite Work Order, The Inspection Traveler and Process Sheet (ITPS), and Certifications all match and that the parts are inspected for acceptable processing in accordance with the P.O., Offsite Work Order (OWO) Form, and/or specification/drawing requirements.

7.7.5 Receiving Inspection shall verify that the Offsite Work Order (OWO) is recorded on the Inspection Traveler and Process Sheet (ITPS), inspect the operation and stamp off the operation on the ITPS. The ITPS shall than be forwarded to the next operation.

7.8 Calibration Services

7.8.1 Tools, gages, ovens, and additional manufacturing equipment requiring calibration shall be controlled by a purchasing requisition and/or MRP system that states the quality requirements. All purchase orders/blanket orders shall be reviewed by a Quality Representative and the process owner (Heat Treat Manufacturing Engineer, NDT Level III, etc.) prior to the order being placed.

7.8.2 Quality clauses will be flowed down in accordance with ARPRO 967.

8.0 RISK ASSESSMENT/ANALYSIS

8.1 For new programs, suppliers risk shall be captured in the new product and development stages described in SOP-2-107, Engineering Product Design and Development Process.

8.2 Suppliers are assessed based on their 12-month rolling performance rating for Quality and Delivery and shall only be maintained for critical suppliers. In addition, periodic reviews are conducted of supplier capacity assessments (ARPRO1083) and supplier obsolescence surveys (ARPRO1128). These are electronic forms and are submitted on an as needed basis.

8.3 Complete or partial on site audits shall be prompted at the supplier based on the subjects identified in the engineering design and development process, results of the performance ratings and other issues that arise within the manufacturing stages that cause concerns of risk.

9.0 CORRECTIVE ACTION

9.1 When a Supplier fails to meet the requirements of the purchase order, audit requirements, the quality performance rating, or performance assessments, a corrective action request may be issued in accordance with QCI-14-078, Corrective Action procedure.

9.2 If a corrective action request is not responded to, is deemed to be ineffective, is a repetitive finding the Supplier will be evaluated to the Corrective Action Board and/or the Supplier Quality Engineer to determine continued approval status.

10.0 RECORDS

Records shall be maintained in accordance with QCI-16-055, Quality Records.

11.0 NONCONFORMING MATERIAL

Disposition of nonconforming material shall be processed in accordance with QCI-13-077.

12.0 SUPPLIER PERFORMANCE REPORTING

Performance reports will be generated monthly for critical suppliers. Suppliers will be notified of their performance rating in both Quality and Delivery, and recovery plans or Corrective Action Plans will be initiated as required.

Performance reports for service providers will be generated quarterly. Suppliers will be notified of any nonconformance and recovery plans or Corrective Action Plans will be initiated as required.

13.0 CUSTOMER SPECIFIC REQUIREMENTS

13.1 As specified by purchase order, specification or drawing, use of customer approved suppliers may be required. See ARPRO 967 for procurement and flow down requirements.

13.2 Customer communication in the form of alerts, supplier disclosure letters, or corrective actions shall be stored in the electronic customer file on the Quality Assurance drive. If it is deemed necessary by the responsible program Quality Engineer the communication notice shall be forwarded to all applicable/affected suppliers.

14.0 FORMS USED

Quality Audit Checklist	ARPRO 1022
Supplier Questionnaire	ARPRO 1000
Supplier Product Assurance Requirements	ARPRO 967
Request for NDT Form	ARPRO 942A
Request for Lab Services	ARPRO 949
A/P Acceptance Tag	ARPRO1005
Request for Authorization to Use	ARPRO1024
Supplier Product Audit Form	ARPRO 1108
Critical Supplier List	ARPRO 1131
Supplier Capacity Assessment	ARPRO 1083
Supplier Obsolescence Survey	ARPRO 1128